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BIBLIOGRAPHY OF EXTRATERRESTRIAL RESEARCH

(Second Edition)

by

Robert W. Henny
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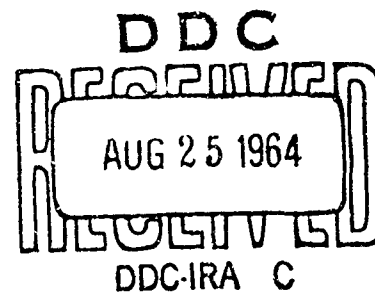
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Research and Technology Division
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Air Force Systems Command
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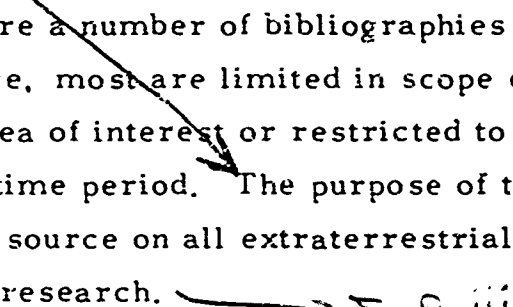
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FOREWORD

Although there are a number of bibliographies on extraterrestrial research in existence, most are limited in scope either by being slanted toward a specific area of interest or restricted to research occurring during a particular time period. The purpose of this bibliography is to provide a reference source on all extraterrestrial research pertinent to lunar and planetary research. 

To handle such a momentous task, all the listings are punched on IBM cards and are then automatically categorized, alphabetized, and printed, utilizing AFSWC's CDC 1604 Digital Computer.

This report is an extension of the work reported under RTD-TDR-63-3025. It is intended that this second edition provide a foundation for succeeding editions. This edition is therefore a preliminary compilation of references; it is neither complete nor specialized for any of the categories or for any particular time interval.

Entries in each category are alphabetized and cross indexed. Where more than one article appears for any one author, such are listed in order of dates published. It will be noted that no single entry appears in more than one category. Finally, ASTIA Document numbers are indicated by prefixing the letters "AD."

ABSTRACT


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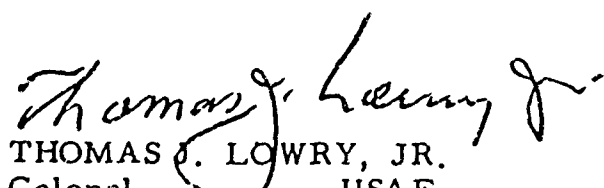
~~This bibliography on extraterrestrial research~~ is subdivided into the following categories: ~~I. General, (Astrobiology, Astronomy and Cosmology, Materials - Space Environment Effects, Orbital Vehicles and Probes, and Space Environmental Simulation);~~ II. ~~Moon, (Atlases and Maps, Configuration and Internal Structure, Environment, Experimental Research, Exploration and Basing Concepts, Lunar-Earth Phenomena, Lunar Trajectories and Associated Problems, Surface Materials and Natural Resources, and Topographical Features);~~ III. ~~Planets, (Jupiter, Mars, Mercury, Neptune, Pluto, Uranus, Saturn, and Venus);~~ IV. ~~Extraterrestrial Materials, (Asteroids and Comets, Meteors, Micrometeorites, Dust, Meteorites, and Tektites);~~ V. ~~Cratering, (Laboratory Cratering Phenomena, Meteorite Cratering and Associated Phenomena, and Nuclear and HE Cratering Phenomena);~~ and VI. Bibliographies.

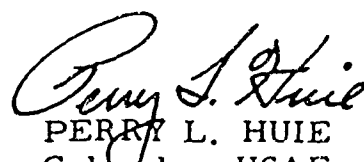
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PUBLICATION REVIEW

This report has been reviewed and is approved.


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FRAMES

ASTROBIOLOGY

Adeline and Gilbert, "Use of Plants for the Regeneration of Oxygen from Carbon Dioxide," *Fusees et Recherche Aeron.*, V. 12, No. 3, Mar. 1957, p. 69-74. (French)

Alberti, J., "Lunar Medicine and Interplanetary Medicine," *Riforma Medecine*, V. 73, 1959, p. 1114. (Italian)

Anders, E., "The Moon as a Collector of Biological Material," *Science*, V. 133, 1961, p. 1115-1116.

Ballinger, E. R., and Montoya, E. F., "Influence of Extraterrestrial Gravitational Fields upon Plant Growth," *Los Alamos Scientific Laboratory*, New Mexico, Report No. LAMS-2526, p. 306-313.

Bartlett, J. C., "Principles of Environmental Adaption as Applied to Possible Lunar Plants," *Strolling Astronomer*, V. 3, No. 12, 1949, p. 13-14.

Calvin, M., "Origin of Life on Earth and Elsewhere," *Lunar and Planetary Exploration Colloquium. Proceedings*, V. 1, No. 6, 1959, p. 8-18.

Campbell, P. A. (Editor), "Medical and Biological Aspects of the Energies of Space," *Columbia University Press*, 1961, 491 pp.

Connor, J. A., "Aerospace Nuclear Safety," *Aerospace Medicine*, V. 31, 1960, p. 787-806.

Cooper, J. C., "Extraterrestrial Life and Space Lawyers," *British Interplanetary Society. Journal*, V. 19, No. 3, 1963, p. 101.

Cronquist, D. H., "Considerations on the External Ballistics of a Man Jumping on the Surface of the Moon," *Pacific Rocket Society. Bulletin*, V. 4, No. 11, 1951, p. B4-B6.

Groth, W. E. and Weyssenhoff, H., "Photochemical Formation of Organic Compounds from Mixtures of Simple Gases," *Planetary and Space Science*, V. 2, 1960, p. 79-85.

Hoffman, R. K., (See Portner, D. M., 1961)

Horowitz, N. H. (Chairman), "Astrobiology Session," *Lunar and Planetary Exploration Colloquium. Proceedings*, V. 2, No. 1, 1959, p. 2-14.

Hutchinson, D. R., Jones, T. J., and Potter, R., "Indications of Other Life in the Solar System," British Astronomical Association. Journal, V. 74, No. 2, 1964, p. 59-65.

Jackson, F., and Moore, P. A., "Life in the Universe," Norton, 1962, 140 pp.

Jaffe, L. D., "Sterilizing Unmanned Spacecraft," Astronautics and Aerospace Engineering, Aug. 1963, p. 22-29.

Jones, T. J., (See Hutchinson, D. R., 1964)

Lindberg, R. G., "Biomedical Research in Space," SAE-AFOSR, Astronautic Symposium, Los Angeles, California, Oct. 12-14, 1960, Preprint 23J, 4 pp.

Miller, C., "Extraterrestrial Life," British Interplanetary Society. Journal, V. 19, No. 3, 1963, p. 100-101.

Montoya, E. F., (See Ballinger, E. R., LAMS-2526)

Moore, P. A., "Life on the Moon," Irish Astronomical Journal, V. 3, 1955, p. 133-137.

Moore, P. A., (See Jackson, F., 1962)

Morelli, F. A., "Effect of Ultra-High Vacuum on Bacillus Subtilis Var Niger," Nature, V. 196, No. 4850, 1962, p. 106-107.

Oyama, V. I. and Vango, S. P., "Application of Gas Chromatography to the Analysis of Organics, Water, and Adsorbed Gases in the Lunar Crust," National IAS/ARS Joint Meeting, Los Angeles, California, June 13-16 1961, American Rocket Society. Report 61-110-1804.

Phillips, C. R., (See Portner, D. M., 1961)

Portner, D. M., Spiner, D. R., Hoffman, R. K., and Phillips, C. R., "Effect of Ultra-High Vacuum on Viability of Micro-Organism," Science, V. 134, No. 3495, 1961, p. 2047.

Potter, R., (See Hutchinson, D. R., 1964)

Rublowsky, J., "Is There Life on the Moon," Space World, 1961, p. 15, 49-50.

Sagan, C., "Indigenous Organic Matter on the Moon," National Academy of Sciences. Proceedings, V. 46, 1960, p. 393-395.

Sagan, C., "Organic Matter and the Moon," Armed Forces-NRC Committee on Bio-Astronautics, Washington, D. C., Publication No. 757, 1961, 49 pp., AD-261191.

Shapley, H., "Extraterrestrial Life," Astronautics, V. 5, Apr. 1960, p. 32-33, 50, 52.

Slater, A. E., "Life in the Universe," Spaceflight, V. 5, No. 6, 1963, p. 198-201.

Spiner, D. R., (See Portner, D. M., 1961)

Strughold, H., "Advances in Astrobiology," Lunar and Planetary Exploration Colloquium. Proceedings, V. 1, No. 6, 1959, p. 1-7.

Strughold, H., "An Introduction to Astrobiology," Astronautics, V. 5, No. 12, 1960, p. 20-21 and 86-90.

Vango, S. P., (See Oyama, V. I., 1961)

Weyssenhoff, H., (See Groth, W. E., 1960)

-----, "Proceedings of Meeting on Problems and Techniques Associated with the Decontamination and Sterilization of Spacecraft," NASA TN D-771, 1961, 57 pp.

ASTRONOMY AND COSMOLOGY

Allen, C. W., "Astrophysical Quantities," John de Graeff, 1955, 263 pp.

Anders, E., "Extinct Radioactivity and the Prehistory of the Solar System," *Zeitschrift Naturforschung*, V. 16A, No. 5, 1961, p. 520-521.

Anonymous, "Bodes Law and the Solar System," *Nature*, V. 188, 1960, p. 1175-1176.

Baker, R. L., "Astrodynamics," Space Trajectories. A Symposium Sponsored by the American Astronautical Society, the Advanced Research Projects Agency, and Radiation Incorporated, Orlando, Dec. 14-15, 1959, New York, Academic Press, 1960, p. 29-68.

Banerji, A. C., "The Origin of the Solar System," *Science and Culture*, V. 10, No. 8, 1945, p. 317-323.

Berlage, H. F., "Internal Constitution of the Bodies of the Solar System," *Keninkl. Nederland. Akad. Wetenschap. Proceedings*, V. 54B, 1951, p. 344-349.

Blanco, V. M., and McCusky, S. W., "Basic Physics of the Solar System," Addison-Wesley, 1961, 307 pp.

Bondi, H., "Cosmology," Cambridge University Press, 1961, 182 pp.

Bostick, W. H., "Cosmology," Institute of Aeronautical Science, Preprint 833, Jan. 1958, 10 pp.

Bracewell, R. N., (See Pawsy, J. L., 1955)

Bracewell, R. N., (See Senior, T. A., 1959)

Briggs, M. H., "Origin of the Solar System," *Nature*, V. 187, 1960, p. 1102-1103.

Brown, H., "The Origin of the Planets," *Chemical Engineering News*, V. 30, 1952, p. 1622-1626.

Cameron, A. W., "The Origin of the Solar System," Problems Related to Interplanetary Matter, National Academy of Science, National Research Council, Publication 345, 1961, p. 1-8.

Cameron, A. W., (See Jastrow, R., 1962)

Chamberlin, T. C., "The Two Solar Families," University of Chicago Press, 1928.

Cohen, M. N., "Radio Astronomy Polarization Measurements," Cornell University Research Report EE 364, RADC-TR-58-42, 1958, 11 pp., AD 148663.

Dicke, R. N., "Cosmology, Machs Principle and Relativity." American Journal of Physics, V. 31, No. 7, 1963, p. 500-509.

Edgeworth, K. E., "The Earth, the Planets, and the Stars - Their Birth and Evolution," Chapman and Hall, London, 1961, 193 pp.

Eggleton, R. E., (See Shoemaker, E. M., 1961)

Egyed, L., "Diracs Cosmology and the Origin of the Solar System," Nature, V. 186, 1960, p. 621-622.

Fowler, W. A., Greenstein, J. L., and Hoyle, F., "Nuclear History of the Solar System," Astronomical Society of the Pacific. Publications, V. 73, 1961, p. 326.

Giacconi, R., and Rossi, B., "A Telescope for Soft X-Ray Astronomy," Journal of Geophysical Research, V. 65, 1960, p. 773-775.

Gibson, J. E., and McEwan, R. J., "Paris Symposium on Radio Astronomy," Edited by R. N. Bracewell, Stanford University Press, 1959, p. 50.

Greenstein, J. L., (See Fowler, W. A., 1961)

Hackman, R. J., (See Shoemaker, E. M., 1961)

Haddock, F. I., "Radio Astronomy Observations from Space," American Rocket Society Meeting, San Diego, California, Jun. 1959.

Herbig, G. H., and Worley, C. E., "Some Basic Astronomical Data," Astronomical Society of the Pacific. Leaflet 325, 1956.

- Herrick, S. (Chairman), "Astronomy Session," Lunar and Planetary Exploration Colloquium. Proceedings, V. 2, No. 1, 1959, p. 34-48.
- Hlavaty, H., "The Structure of Our Space," Aeronautical Engineering Review, V. 17, Apr. 1958, p. 30-32, 37.
- Hoyle, F., "Frontiers of Astronomy," Harper and Brothers, 1955.
- Hoyle, F., (See Fowler, W. A., 1961)
- Hoyle, F., "Astronomy," Doubleday, 1962, 320 pp.
- Jastrow, R., and Cameron, A. W. (Editors), "Origin of the Solar System," Academic Press, 1962, 176 pp.
- Jeans, J. H., "Astronomy and Cosmology," Cambridge University Press, 1929.
- Jeffereys, H., "The Origin of the Solar System," Royal Society. Proceedings, Series A, V. 214, 1952, p. 281-291.
- Johnson, F. S., "The Composition of Outer Space," Astronautics, V. 5, Apr. 1960, p. 30-31, 92, 94.
- Jones, H. S., "General Astronomy," 4th Edition, St. Martins Press, 1962, 470 pp.
- Kopal, Z., "Close Binary Systems," Chapman-Hall and John Wiley and Sons, 1959.
- Krogdahl, W. S., "The Astronomical Universe," 2nd Edition, MacMillan Company, 1962, 585 pp.
- Kuiper, G. P., "On the Origin of the Solar System," National Academy of Sciences. Proceedings, V. 37, 1951, p. 1-14.
- Kuiper, G. P., "On the Evolution of the Protoplanets," National Academy of Sciences. Proceedings, V. 37, 1951, p. 383-393.

Kuiper, G. P., "On the Evolution of the Protoplanets," National Academy of Sciences. Proceedings, V. 37, 1951, p. 717-721.

Kurth, R., "Introduction to the Mechanics of the Solar System," Pergamon Press, London, 1960, 177 pp.

Leadabrand, R. L., "Radar Astronomy Symposium Report," Journal of Geophysical Research, V. 65, 1960, p. 1103-1118.

Liller, W. (Editor), "Space Astrophysics," McGraw-Hill, 1961, 272 pp.

Locke, J. L., "Space Astronomy," Canadian Aeronautical Journal, V. 6, No. 9, 1960, p. 244-247.

Lyttleton, R. A., "Dynamical Calculations Relating to the Origin of the Solar System," Royal Astronomical Society. Monthly Notices, V. 122, 1961, p. 551-570.

Lyttleton, R. A., "An Accretion Hypothesis for the Origin of the Solar System," Royal Astronomical Society. Monthly Notices, V. 122, 1961, p. 400-407.

Massey, H., "Space Research," Endeavour, V. 20, No. 78, 1961, p. 68-77.

McCusky, S. W., (See Blanco, V. M., 1961)

McEwan, R. J., (See Gibson, J. E., 1959)

McVitte, G. C., "Fact and Theory in Cosmology," MacMillan, 1962, 190 pp.

Mehlin, T. G., "Astronomy," John Wiley and Sons, 392 pp.

Moore, P. A., "Astronomy," Oldbourne, 1961, 253 pp.

Moulton, F. R., "An Introduction to Celestial Mechanics," MacMillan Company, 1914.

Pannekock, A., "A History of Astronomy," Interscience Publishers, 1961.

Pawsey, J. L., and Bracewell, R. N., "Radio Astronomy," Oxford University Press, Amen House, London, 1955.

Plummer, H. C., "An Introductory Treatise on Dynamical Astronomy," Dover Publications, 1960.

Roman, C., "Changing Views of the Universe - A Survey of Astronomy -1," MacMillan Company, 1961.

Rossi, B., (See Giacconi, R., 1960)

Ryle, M., "Radio Astronomy and Cosmology," American Scientist, V. 3, 1962, p. 92-98.

Schroeder, W., "Practical Astronomy," Philosophical Library, 1957, 206 pp.

Senior, T. A., Siegel, K. M., and Bracewell (Editors), "Paris Symposium on Radio Astronomy," Stanford University Press, 1959.

Shmidt, O. Y., "The Origin of Planets and Their Satellites," Akademiya Nauk SSSR. Izvestiia, Seria Fizicheskaya, V. 14, No. 1, 1950, p. 29-45. (Russian)

Shoemaker, E. M., Hackman, R. J., and Eggleton, R. E., "Interplanetary Correlation of Geologic Time," American Astronautical Society, 7th Annual Meeting, 1961, 30 pp.

Sidgwick, J. B., "Introducing Astronomy," MacMillan, 1957, 259 pp.

Siedentopf, H., "Methods and Results of Radio Astronomy-II," Zeitschrift fuer Angewandte Physik, V. 6, No. 9, 1954, p. 422-430. (German)

Siegel, K. M., (See Senior, T. A., 1959)

Struve, O., "McCrea's Theory of the Solar Systems Origin," Sky and Telescope, V. 19, 1960, p. 154-156.

Struve, O., and Zeberg, V., "Astronomy of the 20th Century," MacMillan, 1962, 544 pp.

Suvrov, N. D., "Die Entstehung des Planeten des Sonnensystems (The Origin of the Planets of the Solar System)," *Naturwissenschaften*, V. 48, No. 7, 1961, p. 214.

Thackeray, A. D., "Astronomical Spectroscopy - A Survey of Astronomy," MacMillan Company, 1961.

Urey, H. C., "The Origin and Development of the Earth and Other Terrestrial Planets," *Geochimica et Cosmochimica Acta*, V. 1, 1951, p. 209-277.

Watson, J. C., "Theoretical Astronomy," Lippincott, 1960.

Woolfson, M. M., "Origin of the Solar System," *Nature*, V. 187, 1960, p. 47-48.

Worley, C. E., (See Herbig, G. H., 1956)

Young, L. B. (Editor), "Exploring the Universe," McGraw-Hill, 1963.

Zeberg, V., (See Struve, O., 1962)

MATERIALS - SPACE ENVIRONMENT EFFECTS

Achter, M. R., "Effects of High Vacuum on Mechanical Properties," Paper Presented at First Symposium, Surface Effects on Spacecraft Materials, John Wiley and Sons, 1960, p. 286-306.

Atkins, J. H., Bisplinghoff, R. L., Ham, J. L., Jackson, E. G., and Simons, J. C., "Effects of Space Environment on Materials," National Research Corporation, WADD-TR-60-721, 1960.

Atlee, Z. J., Wilson, J. T., and Filmer, J. C., "Lubrication in Vacuum by Vaporized Thin Metallic Films," Journal of Applied Physics, V. 11, 1940, p. 611-615.

Bisplinghoff, R. L., (See Atkins, J. H., 1960)

Bowman, R. E., and Lyons, C. J., "Radiation Environment and Its Effects on Materials and Systems," Test Engineering, V. 2, No. 3, 1959.

Caruso, S. V., (See Riehl, W. A., 1960)

Clauss, F. J., "Surface Effects on Materials in Near Space," Aerospace Engineering, V. 19, No. 10, 1960, p. 16-19, 56, 58-59, 62.

Clauss, F. J., "Lubricants and Self-Lubricating Materials for Spacecraft Mechanisms," Lockheed Missiles and Space Division, Technical Report 894d12, 1961.

Davis, D. D., "Space Environment and Its Effects on Materials," NASA-Industry Conference on the Science and Technology of Space Exploration, Chicago, November 1-3, 1962, NASA SP-11, p. 439-450.

DeWitt, E. A., Podlaseck, S., and Suhorsky, J., "Effect of Low Pressure at Elevated Temperatures on Space Vehicle Materials," Martin Company, Report RM-29, 1959.

Dow, N. F., "The Ionizing Radiation in Space-Structural Implications," Aerospace Engineering, May 1960.

Filmer, J. C., (See Atlee, Z. J., 1940)

Freundlich, M. E., and Hannah, C. H., "Problems of Lubrication in Space," Lubrication Engineering, V. 17, No. 2, 1961, p. 72-77.

Gatland, K. W., (See Thompson, G. E., 1963)

Ham, J. L., (See Atkins, J. H., 1960)

Ham, J. L., "Mechanisms of Surface Removal from Metals in Space," Aerospace Engineering, V. 20, No. 5, 1961, p. 20-21, 49-52, 54.

Hannah, C. H., (See Freundlich, M. E., 1961)

Hansen, S., Jones, W., and Stephenson, A., "High Vacuum Friction," Litton Industries of California, AFOSR TR-59-97, 1959.

Happe, R. A., "Materials in Space," California Institute of Technology, Jet Propulsion Laboratory, Technical Release No. 34-143, 1960.

Happe, R. A., "Materials in Space," Ordnance, V. 45, Jan.-Feb. 1961, p. 578-580.

Hart, V. E., (See Madorsky, S. L., 1953)

Hart, V. E., (See Madorsky, S. L., 1956)

Honig, R. E., "Vapor Pressure Data for the More Common Elements," RCA Review, V. 18, 1957, p. 195-204.

Jaffe, L. D., and Rittenhouse, J. B., "Behavior of Materials in Space Environments," California Institute of Technology, Jet Propulsion Laboratory, Report 32-150, 1951.

Jaffe, L. D., and Rittenhouse, J. B., "Behavior of Materials in Space Environments: Plastics and Elastomers," California Institute of Technology, Jet Propulsion Laboratory, Report 32-176, 1961.

Jackson, E. G., (See Atkins, J. H., 1960)

Johnson, V. R., and Vaughn, G. W., "Investigation of the Mechanism of MoS₂ Lubrication in Vacuum," Journal of Applied Physics, V. 27, 1956, p. 1173-1179.

Jones, W., (See Hansen, S., 1959)

Lad, R. A., "Survey of Materials Problems Resulting from Low Pressure and Radiation Environment in Space," NASA TN-D477, 1960.

Looney, W. C., (See Riehl, W. A., 1960)

Lyons, C. J., (See Bowman, R. E., 1959)

Madorsky, S. L., and Straus, S., "High Vacuum Pyrolytic Fractionation of Polystyrene," Journal of Research, National Bureau of Standard, V. 40, 1948, p. 417.

Madorsky, S. L., Straus, S., Thompson, D., and Williamson, L., "Pyrolysis of Polyisobutene (Vistanex), Polyisoprene, Polybutadiene, GR-S and Polyethylene in a High Vacuum," Journal of Research, National Bureau of Standards, V. 42, 1949, p. 499-514.

Madorsky, S. L., "Rates of Thermal Degradation of Polystyrene and Polyethylene in a Vacuum," Polymer Science. Journal, V. 8, 1952, p. 133.

Madorsky, S. L., Hart, V. E., Straus, S., and Sediak, V. A., "Thermal Degradation of Tetrafluoroethylene and Hydrofluoroethylene Polymers in a Vacuum," Journal of Research, National Bureau of Standards, V. 51, 1953, p. 327-333.

Madorsky, S. L., (See Straus, S., 1953)

Madorsky, S. L., and Straus, S., "Thermal Degradation of Polychlorotrifluoroethylene, Poly-a, b, b-Trifluorostyrene, and Poly-p-Xylylene in a Vacuum," Journal of Research, National Bureau of Standards, V. 55, 1955, p. 223-230.

Madorsky, S. L., Hart, V. E., and Straus, S., "Pyrolysis of Cellulose in a Vacuum," Journal of Research, National Bureau of Standards, V. 56, 1956, p. 343-354.

Marshall, A. L., (See Verhoek, F. H., 1939)

Matacek, G. F., "Vacuum Volatility of Organic Coatings," Paper Presented at First Symposium, Surface Effects on Spacecraft Materials, John Wiley and Sons, 1960, p. 263-285.

Podlaseck, S., (See DeWitt, E. A., 1959)

Reiffel, L., "Structural Damage and Other Effects of Solar Plasmas," ARS Journal, V. 30, 1960, p. 258-262.

Riehl, W. A., Looney, W. C., and Caruso, S. V., "Compatibility of Engineering Materials with Space Environment," U.S. Army Ballistic Missile Agency Final Report on Item 1, Part II, 1960.

Rittenhouse, J. B., (See Jaffe, L. D., 1951)

Rittenhouse, J. B., (See Jaffe, L. D., 1961)

Rittenhouse, J. B., "Behavior of Materials in Space," California Institute of Technology, Jet Propulsion Laboratory, Research Summary 36-8, May 1961, p. 92-94.

Santeler, D. J., "Outgassing Characteristics of Various Materials," 5th National Symposium on Vacuum Technology. Transactions, 1958, p. 1-8.

Sedlak, V. A., (See Madorsky, S. L., 1953)

Simons, J. C., (See Vanderschmidt, G. F., 1960)

Simons, J. C., (See Atkins, J. H., 1960)

Stephenson, A., (See Hansen, S., 1959)

Straus, S., (See Madorsky, S. L., 1948)

Straus, S., (See Madorsky, S. L., 1949)

Straus, S., and Madorsky, S. L., "Pyrolysis of Styrene, Acrylate, and Isoprene Polymers in a Vacuum," Journal of Research, National Bureau of Standards, V. 50, 1953, p. 165-176.

Straus, S., (See Madorsky, S. L., 1953)

Straus, S., (See Madorsky, S. L., 1955)

Straus, S., (See Madorsky, S. L., 1956)

Suhorsky, J., (See DeWitt, E. A., 1959)

Thompson, D., (See Madorsky, S. L., 1949)

Thompson, G. E., and Gatland, K. W., "Materials in Space Technology," Iliffe Books, London, 1963, 275 pp.

Vanderschmidt, G. F., and Simons, J. C., Jr., "Material Sublimation and Surface Effects in High Vacuum," Paper Presented at First Symposium, Surface Effects on Spacecraft Materials, John Wiley and Sons, 1960, p. 247-262.

Vaughn, G. W., (See Johnson, V. R., 1956)

Verhoek, F. H., and Marshall, A. L., "Vapor Pressures and Accommodation Coefficients of Four Non-Volatile Compounds. Vapor Pressure of Tri-m-Cresyl Phosphate Over Polyvinyl Chloride Plastics," American Chemical Society. Journal, V. 61, 1939, p. 2737-2742.

Villaume, H. F., "Implications of Operating Instrument Bearings in the Vacuum of Outer Space," New Hampshire Ball Bearings Incorporated, Report, 1959.

Wells, R. R., "Cold Welding of Metals in a Space Environment," Northrop Space Laboratories, Report 62-198, Oct. 1962.

Willens, R. H., "Bearings for High Vacuum Applications," Review of Scientific Instruments, V. 31, 1960, p. 574.

Williamson, L., (See Madorsky, S. L., 1949)

Wilson, J. T., (See Atlee, Z. J., 1940)

Young, J. E., (See Bowden, F. P., 1949)

-----, "National Symposium on the Effects of Space Environment on Materials," Society of Aerospace Materials and Process Engineers, 1962.

ORBITAL VEHICLES AND PROBES

Alexander, J., and Merkel, K., "Expandable Lunar Shelter Concepts," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Book, Mar. 1964, p. 255-284.

Allinikov, S., (See Forbes, F. W., 1964)

Anonymous, "Earth-to-Space Ferry Designed for Astronauts," Astronautical Sciences Review, Oct.-Dec. 1959.

Arthur, G. R., "Manned Lunar Vehicles," Institute of Aerospace Science, Paper 62-134, 1962, 31 pp.

Arthur, G. R., Slomski, J. F., and Thompson, H. D., "Engineering Design of Manned Orbital Space Station," Institute of Aerospace Science, Paper 63-34, 1963, 65 pp.

Babinsky, A., (See Del Duca, M. G., 1960)

Bandaruk, W., and Younger, D., "Telescoping Pressurized Structures and Seals," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 548-575.

Berglund, R. A., (See Olling, E. H., 1963)

Bernstein, B. S., "Study of the Memory Effect of Polyethylene for Space Expandable Structure Applications," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 702-714.

Bogema, B. L., (See Carter, J. W., 1960)

Boler, L. V., "The Potential of Expanded Aluminum Mesh for Inflatable Rigidized Radar Reflective Devices," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 381-396.

Bossart, K. J., "An Engineer Looks at Space Flight," Electrical Engineering, V. 79, Dec. 1960, p. 960-962.

Bratton, F., Stenlund, S., and Wendt, A., "Advanced Rigidized Membrane Material Development," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 613-652.

Byers, R. A., and Kramer, S. B., "Assembly of a Multimanned Satellite," *Advances in the Astronautical Sciences*, V. 4, 1958, p. 154-169.

Byers, R. A., and Kramer, S. B., "Assembly of a Multimanned Satellite," Lockheed Aircraft Report LMSD-48347.

Byers, R. A., (See Kramer, S. B., 1959)

Byers, R. A., (See Kramer, S. B., 1959)

Byers, R. A., (See Kramer, S. B., 1960)

Carter, J. W., and Bogema, B. L., "Inflatable Manned Orbital Vehicles," *Aerospace Engineering*, May 1960.

Clark, C. C., and Hardy, J. D., "Gravity Problems in Manned Space Stations," *Aerospace Engineering*, V. 19, May 1960, p. 36-39.

Coleman, P. J., Sonett, C. P., Judge, D. L., and Smith, E. J., "Some Preliminary Results of the Pioneer V Magnetometer Experiment," *Journal of Geophysical Research*, V. 65, 1960, p. 1856-1857.

Couchman, C. C., "Laboratory Considerations for a Scientific Manned Space Station," American Institute of Aeronautics and Astronautics, Summer Meeting, Los Angeles, California, June 17-20, 1963, Paper 63-251, 9 pp.

Culbertson, B., (See Russell, I., 1964)

Daft, B. L., "An Elastic Recovery Concept for Expandable Space Structures," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 511-534.

Davis, R. J., "Orbiting Optical Telescopes," American Rocket Society Meeting, San Diego, Jun. 1959.

Del Duca, M. G., Babinsky, A., and Miraldi, F. D., "Integrated Thermodynamic Systems for Manned Space Stations," *Aerospace Engineering*, V. 19, May 1960, p. 56-57, 104.

Dolan, T. E., (See Lundberg, R. H., 1960)

Dorsey, J. W., (See Stoiko, M., 1960)

Doss, J. H., and Montague, L. J., "Some Factors Influencing the Selection of a Manned Space Station Concept," Aerospace Engineering, V. 19, May 1960, p. 28-29, 94.

Dunning, E., (See Russell, I., 1964)

Ekberg, D. R., (See Parker, F. A., 1963)

Engler, E. E., (See Koelle, H. H., 1960)

Fielder, G., "Observations Related to the Impact of Lunik II," Nature, V. 185, 1960, p. 11.

Foerster, A. F., "Theoretical and Experimental Investigation of Metal Fabric Expandable Structures for Aerospace Applications," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 95-117.

Forbes, F. W., (See May, C. B., 1964)

Forbes, F. W., Allinikov, S., and Koons, C., "Gelatin as a Rigidization Material for Aerospace Structures," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 192-215.

Frye, W., "Lunar Instrument Carrier - Powered Flight Guidance," RM 1729, 4 Jun. 1956.

Furrer, J. F., "Expandable Foam-in-Place Shelters and Related Items," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 397-399.

Gazley, C., "Atmospheric Entry of Manned Vehicles," Aerospace Engineering, V. 19, May 1960, p. 22-23, 90.

Graham, T., and Spain, R., "Rigidization of Expandable Structures Via Gas Catalysis," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 236-254.

Grodsky, M. A., and Sorkin, R. D., "Man's Contribution to an Operational Space Station Concept," Aerospace Engineering, V. 19, May 1960, p. 80-81.

Gustavson, J., "Stations in Space," Jet Propulsion, V. 27, No. 7, 1957, p. 812-815.

Hardy, J. D., (See Clark, C. C., 1960)

Harris, J. T., "Airmat Structures for Space and Limited War Application," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 62-73.

Hebeler, H. K., and White, R. D., "Some Design Aspects of an Interplanetary Exploratory Vehicle," Astronautical Sciences Review, Apr.-Jun. 1959.

Hibbs, A. R., "Results of Pioneer IV Flight," Lunar and Planetary Exploration Colloquium. Proceedings, V. 1, No. 5, 1959, p. 11.

Hibbs, A. R., and Snyder, C. W., "Results of Pioneer III Flight," Lunar and Planetary Exploration Colloquium. Proceedings, V. 1, No. 4, 1959, p. 48-52.

Howard, H. F., and Laughlin, R. M., "The Uses of Chemical Power Systems in the Construction, Servicing, and Operation of Manned Space Stations," Aerospace Engineering, V. 19, May 1960, p. 62-63.

Jones, R., (See Schwartz, S., 1964)

Judge, D. L., (See Coleman, P. J., 1960)

Kass, R., (See Yoncoskie, R., 1964)

Kayten, G. G., (See Stoiko, M., 1960)

Keckler, C. R., (See Kurzhals, P. R., 1963)

Kelner, L., (See Schwartz, S., 1964)

Keng, C., (See Sujata, H., 1964)

Koelle, H. H., Engler, E. E., and Massey, J. W., "Design Criteria and Their Application to Economical Manned Satellites," Aerospace Engineering, V. 19, May 1960, p. 24-25, 90.

Konecni, E. B., "Sealed Cabin Ecology for Space Exploration," Lunar and Planetary Exploration Colloquium. Proceedings, V. 1, No. 6, 1959, p. 37-43.

Koons, C., (See Forbes, F. W., 1964)

Kovalevsky, L., and Rish, F., "On the Structural Behavior of Inflated Cylinders under Various Loading Conditions," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 674-701.

Kramer, S. B., (See Byers, R. A., 1958)

Kramer, S. B., and Byers, R. A., "Manned Space Station Needs Special Ferries and Tugs," Space Aeronautics, Aug. 1959.

Kramer, S. B., and Byers, R. A., "Ten-Man Space Station for Assembly in Orbit," Space Aeronautics, Jul. 1959.

Kramer, S. B., and Byers, R. A., "A Modular Concept for a Multimanned Space Station," Aerospace Engineering, V. 19, May 1960, p. 30-31, 90.

Kramer, S. B., (See Byers, R. A., LMSD-48347)

Kurzahls, P. R., and Keckler, C. R., "Spin Dynamics of Manned Space Stations," NASA TR-R-155, 1963. 58 pp.

Lankston, L., (See Yoncoskie, R., 1964)

Laughlin, R. M., (See Howard, H. F., 1960)

Liddell, R., "Expandable Structure Recommendations for the Future," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 653-673.

Lowry, R. H., "Selection of Personnel for Manned Space Stations," Aerospace Engineering, V. 19, May 1960, p. 32-33.

Lundberg, R. H., and Dolan, T. E., "Program Costs for a Manned Space Station," Aerospace Engineering, V. 19, May 1960, p. 83-93, 108.

Manning, L., "Mechanically Mixed Polyurethane Foam Rigidized Solar Collectors," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 432-460.

Margolis, M. A., "Economic Aspects of Developing and Orbiting a Space Station," Aerospace Engineering, V. 19, May 1960, p. 84-85.

Martin, B. D., "The Pioneer IV Lunar Probe - A Minimum-Power FM/PM System Design," California Institute of Technology, Jet Propulsion Laboratory, TR-32-215, Mar. 1962.

Massey, J. W., (See Koelle, H. H., 1960)

Mathews, C. W., (See Olling, E. H., 1963)

May, C. B., Van Schaik, P. N., and Forbes, F. W., "Expandable Hangars for Orbital Maintenance," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 137-167.

Mayer, N., "NASA Interest in Expandable Structures," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 285-318.

Maynard, O. E., (See Olling, E. H., 1963)

McKillip, W., (See Russell, I., 1964)

Merkel, K., (See Alexander, J., 1964)

Miraldi, F. D., (See Del Duca, M. G., 1960)

Moe, M. M., "Solar-Lunar Perturbations of Earth Satellites," ARS Journal, May 1960.

Monego, C. J., "Air-Supported Tents for Military Use," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 400-431.

Montague, L. J., (See Doss, J. H., 1960)

Nebiker, F. R., "Expandable Drag Devices for Mach 10 Flight Regime," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 501-510.

Olling, E. H., Maynard, O. E., Berglund, R. A., and Mathews, C. W., "Earth Orbiting Space Stations - Missions and Capabilities, Configurations and Design, Logistics and Operations," Astronautics and Aerospace Engineering, Feb. 1963, p. 78-86.

Parker, F. A., and Ekberg, D. R., "Selecting the Space-Station Atmosphere," Astronautics and Aerospace Engineering, Aug. 1963, p. 47-52.

Payne, F. A., "Work and Living Space Requirements for Manned Space Stations," Aerospace Engineering, V. 19, May 1960, p. 34-35.

Price, H. L., "Mechanical Properties of Composite Materials for Expandable Space Structures," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 478-500.

Popma, D. C., "Life Support for Long-Duration Missions," Astronautics and Aerospace Engineering, Aug. 1963, p. 53-56.

Reitmeier, G., "Inflatable Space Antenna System," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 605-612.

Rense, W. A., "A Solar Observatory in Space," American Rocket Society Meeting, San Diego, Jun. 1959.

Rish, F., (See Kovalevsky, L., 1964)

Robillard, G., "Explorer Rocket Research Program," ARS Journal, V. 29, No. 7, 1959.

Ross, J., "Flexible Materials and Coatings for Expandable Re-Entry Systems," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 74-94.

Russell, I., Dunning, E., McKillip, W., Culbertson, B., Slagel, R., Viron, and Archer-Daniels-Midland, "Expandable Self-Rigidizing Honeycomb for Aerospace Structures," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 168-191.

Schaefer, H. J., "Radiation Hazards in Space Exploration," Lunar and Planetary Exploration Colloquium. Proceedings, V. 1, No. 6, 1959, p. 23-31.

Schnitzer, E., "Designing a Self-Erecting Manned Space Lab," Astronautics, V. 6, Jan. 1961, p. 22, 23, 56, 58, 60, 61.

Schwartz, S., "Development of a One Part, Foam-in-Space Polyurethane," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 461-477.

Schwartz, S., Jones, R., and Keller, L., "Ultra Violet and Heat Rigidization of Inflatable Space Structures," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 369-380.

Slagel, R., (See Russell, I., 1964)

Slater, R. J., "Design and Fabrication of Inflatable and Rigidizable Passive Communication Satellites," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 576-604.

Smith, E. J., (See Coleman, P. J., 1960)

Smith, L. B., "The Military Test Space Station," Aerospace Engineering, V. 19, May 1960, p. 18-19.

Snyder, C. W., (See Hibbs, A. R., 1959)

Sonett, C. P., "Results of Pioneer I Flight," Lunar and Planetary Exploration Colloquium. Proceedings, V. 1, No. 4, 1959, p. 42-47.

Sonett, C. P., (See Coleman, P. J., 1960)

Sorkin, R. D., (See Grodsky, M. A., 1960)

Spain, R., (See Graham, T., 1964)

Stenlund, S., (See Bratton, F., 1964)

Stewart, P. E., "Lunar Satellites," British Interplanetary Society. Journal, V. 19, No. 2, 1963, p. 52.

Stoiko, M., Kayten, G. G., and Dorsey, J. W., "Manned Scientific Orbital Laboratory," Aerospace Engineering, V. 19, May 1960, p. 26-27, 92-93.

Stuhlinger, E., "The Flight Path of an Electrically Propelled Space Ship," Jet Propulsion, V. 27, No. 4, 1957, p. 410-414.

Sujata, H., and Keng, C., "Variable Geometry Space Structures," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 535-547.

Thompson, H. D., (See Arthur, G. R., 1963)

Trout, O. F., "Sealing Manned Spacecraft," Astronautics and Aerospace Engineering, Aug. 1963, p. 44-46.

Van Allen, J. A., (Editor), "Scientific Uses of Earth Satellites," University of Michigan Press, 1956.

Van Schaik, P. N., (See May, C. B., 1964)

Vasiloff, A., "Limited War Applications for Expandable Structures," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 118-136.

Viron, (See Russell, I., 1964)

Weber, E. A., "Self-Deploying Space Station," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 319-339.

Wendt, A., (See Bratton, F., 1964)

White, R. D., (See Hebeler, H. K., 1959)

Yoncoskie, R., Kass, R., and Lankston, L., "Micro-Encapsulated Polyurethane Foam Reactants for Aerospace Structures," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 216-235.

Younger, D. G., "The Shape of Things to Come in Expandable Spacecraft," Aerospace Expandable Structures Conference. Transactions, 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, p. 11-61.

Younger, D. G., (See Bandaruk, W., 1964)

-----, "Aerospace Expandable Structures Conference. Transactions," 23, 24, 25 October 1963, NCR Sugar Camp, Dayton, Ohio, Mar. 1964, 714 pp.

SPACE - GENERAL

Adams, C. C., "Space Flight," McGraw-Hill, 1959.

Alexander, W. M., (See Lagow, H. E., 1960)

Anonymous, "A Review of Space Research," NAS-NRC Publication 1079, Washington, 1962, 546 pp.

Anselm, R. H., "New Horizons in the Space Age," SAE-Paper No. S178, for Meeting, March 1959, Texas Section, 11 pp.

Bailey, V. A., "Apparent Steady Component of the Interplanetary Magnetic Field," Nature, V. 189, 1961, p. 44-45.

Barr, P. M., "New Worlds to Conquer," Outlook, Oct. 1930.

Bell, B., (See Menzel, D. H., 1958)

Berkner, L. V., and Odishaw, H. (Editors), "Science in Space," McGraw-Hill, 1961, 458 pp.

Berman, A. I., "The Physical Principles of Astronautics," John Wiley and Sons, 1961, 350 pp.

Boyd, L. G., (See Menzel, D. N., 1963)

Brown, R. H., and Lovell, A. B., "The Exploration of Space by Radio," John Wiley and Sons, 1958, 207 pp.

Brown, K., and Ely, L. D., "Space Logistics Engineering," John Wiley and Sons, 1962, 623 pp.

Buckheim, R. W., "Utilization of Space from a National Standpoint," SAE-AFOSR, Astronautic Symposium, Los Angeles, California, Oct. 12-14, 1960, Preprint 230B, 3 pp.

Buckheim, R. W., Herrick, S., Vestine, E. H., and Wilson, A. G., "Some Aspects of Astronautics," IRE Transactions on Military Electronics, New York, Dec. 1958.

Butz, J. S., "Beyond the Moon," Air Force and Space Digest, V. 46, No. 2, 1963, p. 30-34.

Carter, L. J., "Realities of Space Travel," McGraw-Hill, 1957.

Chapman, S., "Interplanetary Space and the Earth's Outermost Atmosphere," Royal Society Proceedings, Series A, V. 253, No. 1275, Dec. 1959.

Chew, B. B., "A Look at the Future Space Effort," Lunar and Planetary Exploration Colloquium. Proceedings, V. 1, No. 2, 1958, p. 1-4.

Chisnall, G. A., and Fielder, G., "Astronomy and Spaceflight," G. G. Harrap, London, 1962, 230 pp.

Clarke, A. C., "Electromagnetic Launching as Major Contribution to Space-Flight," British Interplanetary Society. Journal, V. 9, No. 6, 1950, p. 261-267.

Clarke, A. C., "The Exploration of Space," Harper and Brothers, 1951, 199 pp.

Coleman, P. J., Sonnett, C. P., and Leverett, D., "On the Interplanetary Magnetic Storm, Pioneer V," Journal of Geophysical Research, V. 66, 1961, p. 2043-2046.

Constance, A., "The Inexplicable Sky," Citadel Press, 1957, 288 pp.

Cummings, C. I., "The Shape of Tomorrow," Astronautics, V. 5, Jul. 1960, p. 24-25, 91.

De Jager, C., (See Van de Hulst, H. C., 1962)

Derbyshire, G. A., (See Livingston, R. B., 1963)

Deutsch, A. J., and Klemperer, W. B. (Editors), "Space Age Astronomy," Academic Press, 1961, 531 pp.

Dewitt, B. S., "The Scientific Uses of Large Space Ships," General Atomics, John Hopkins Laboratories for Pure and Applied Science, GAMD-965, AF 18(600)-1812, 1959, 40 pp.

Dubridge, L. A., "Fun in Space," American Journal of Physics, V. 28, No. 8, 1960, p. 719-723.

Dufur, T. B., "A Quicker Method for the Conquest of Space, Part I," Space Flight, V. 8, Feb. 1956, p. 1-6.

Eimer, M., "The Scientific Exploration of Deep Space," NASA-University Conference on the Science and Technology of Space Exploration," Chicago, November 1-3, 1962, NASA SP-11, V. 1, p. 155-162.

Ellis, G., "Geophysical Year Paper," Australasian Engineer, V. 50, 1957, p. 54-56.

Ely, L. D., (See Brown, K., 1962)

Emme, E. M., "Aeronautics and Astronautics - An American Chronology of Science and Technology in the Exploration of Space 1915-1960," NASA Publication, Washington D. C., 1961.

Faget, M. A., and Purser, P. E., "From Mercury to Mars," Astronautics and Aerospace Engineering, Feb. 1963, p. 24-28.

Fielder, G., (See Chisnall, G. A., 1962)

Firsoff, V. A., "Our Neighbour Worlds," Philosophical Library, 1953, 336 pp.

Freedman, T., and Linder, G. S., "Optimum for the Space Age," Air Force and Space Digest, V. 46, No. 1, 1963, p. 43-46.

Friedman, H., "Physics of the Atmosphere and Space," Astronautics, V. 5, Nov. 1960, p. 42, 128, 130, and 132.

Gallant, R. A., "The ABC'S of Astronomy - An Illustrated Dictionary," Doubleday, 1962, 125 pp.

Gardner, J. P., (See Ordway, F. I., 1963)

Garwin, R. L., "Solar Sailing - A Practical Method of Propulsion within the Solar System," Jet Propulsion, V. 28, No. 3, 1958, p. 188-190.

Gatland, K. W., and Kunesch, A. M., "Space Travel," Philosophical Library, 1953, 205 pp.

Gatland, K. W., "Astronautics in the 60's, A Survey of Current Technology and Future Development," John Wiley and Sons, 1962, 388 pp.

Gaynor, F., "Aerospace Dictionary," Philosophical Library, 1960, 260 pp.

Gillespie, R. W., Ragsac, R. V., and Ross, S. E., "Prospects for Early Manned Interplanetary Flights," Astronautics and Aerospace Engineering, Aug. 1963, p. 16-21.

Gilruth, R. R., and Strase H. K., "Manned Space Flight - Present and Future Steps," Aerospace Engineering, V. 19, May 1960, p. 16-17, 88.

Glennan, T. K., "The NASA Space Program," Astronautics, Jul. 1959, p. 36.

Green, J., and Wolfle, D., "GEA, Daughter of Chaos," Science, V. 131, 1960, p. 1071.

Green, P. E., and Petengill, G. H., "Exploration of the Solar System by Radar," Sky and Telescope, V. 20, 1960, p. 9-14.

Greenfield, S. M. (Chairman), "Recapitulation and Appraisal," Lunar and Planetary Exploration Colloquium. Proceedings, V. 2, No. 11, 1959, p. 49-57.

Greenstadt, E. W., "Magnetic Storms in Interplanetary Space as Observed by Pioneer V," Nature, V. 191, 1961, p. 329-331.

Greenwood, S. W., "Solar Sailing - Practical Problems," Jet Propulsion, V. 28, No. 11, 1958, p. 765.

Greenwood, S. W., "Probing Interplanetary Space," Royal Aeronautical Society. Journal, V. 64, May 1960, p. 299-381.

Greenwood, S. W., "The Future Pattern of Space Exploration," Aeronautics, V. 42, Sept. 1960, p. 80-83.

Grey, J., "Space Flight Report to the Nation," Basic Books, 1962.

Gronfors, K., (See Haley, A. G., 1961)

Haley, A. G., and Gronfors, K. (Editors), "Third Colloquium on the Law of Outer Space," Swedish Astronautical Society, 1961, 160 pp.

Herring, J. R., and Lichi, A. L., "The Solar Wind," NASA TN D-487, 1960, 14 pp.

Herrick, S., (See Von Braun, W., 1958)

Hey, J. S., "Radio Astronomy," Science Progress, V. 39, 1951, p. 427-448.

Hibbs, A. R., "The National Program for Lunar and Planetary Exploration," Journal of Geophysical Research, V. 66, Jul. 1961, p. 2003-2012.

Hohemann, W., "The Attainability of Heavenly Bodies," NASA TT F-44, 1960, 104 pp.

Huber, H., (See Von Braun, W., 1952)

Imshensky, A. A., (See Livingston, R. B., 1963)

Jastrow, R., "The Exploration of Space," MacMillan Company, 1958, 160 pp.

Jennison, R. C., "The Radio Exploration of Space," British Interplanetary Society. Journal, V. 14, Nov.-Dec. 1955, p. 307-314.

Johnson, F. S. (Editor), "Satellite Environment Handbook," Stanford University Press, 1961, 167 pp.

Junge, C. E., and Manson, J. E., "Stratospheric Aerosol Studies," Journal of Geophysical Research, V. 66, 1961, p. 2163-2183.

Kaplan, J., (See Von Braun, W., 1952)

Kelczek, J., "Astronomical Dictionary - In Six Languages, English, Russian, German, French, Italian, and Czech," Academic Press, 1962, 972 pp.

Klemperer, W. B., (See Deutsch, A. J., 1961)

Koelle, H. H., "Long Range Planning for Space Transportation Systems," NASA TN D-597, 1961, 36 pp.

Krieger, F. J., "Soviet Space Experiments and Astronautics," Aerospace Engineering, Jul. 1961, p. 28-37.

Kunesch, A. M., (See Gatland, K. W., 1953)

Kupperian, J. E., "Astronomical Research in Space," NASA-University Conference on the Science and Technology of Space Exploration, Chicago, November 1-3, 1962, NASA SP-11, V. 1, p. 139-146.

Lagow, H. E., and Alexander, W. K., "Space Research," North Holland Publishing Company, Amsterdam, 1960.

Larmore, L. (Chairman), "Solar Phenomena," Lunar and Planetary Exploration Colloquium. Proceedings, V. 3, No. 1, 1962, p. 23 and 32-49.

Lasser, D., "By Rocket to the Planets," Nature, Nov. 1931.

Lawton, R. W., "Effects of G Variation During Space Flight," Lunar and Planetary Exploration Colloquium. Proceedings, V. 1, No. 6, 1959, p. 23-31.

Le Galley, D. P. (Editor), "Space Science," John Wiley and Sons, 1963, 668 pp.

Lear, J., "Solar Storms and Space Travel," New Scientist, V. 8, 1960, p. 1060.

Leverett, D., (See Coleman, P. J., 1961)

Ley, W., (See Von Braun, W., 1952)

Ley, W., "Satellites, Rockets, and Outer Space," New American Library, (Revised Edition), 1962, 128 pp.

Licht, A. L., (See Herring, J. R., 1960)

Linder, G. S., (See Freedman, T., 1963)

Livingston, R. B., Imshenesky, A. A., and Derbyshire, G. A. (Editors), "Life Sciences and Space Research," North-Holland, Amsterdam, 1963, 200 pp.

Lovell, A. B., (See Brown, R. H., 1958)

Lovell, A. B., "the Exploration of Outer Space," Spaceflight, V. 11, No. 7, Jul. 1960, p. 194-203.

Lovell, A. B., "Investigation of the Universe by Radio Astronomy," Nature, V. 188, No. 4744, 1960, p. 13-14.

Lovell, A. B., "The Exploration of Outer Space," Harper and Row, 1963, 87 pp.

Manson, J. E., (See Junge, C. E., 1961)

Mayo, A. M., "Environment Considerations of Space Travel from the Engineering Viewpoint," Interavia, V. 11, Jun. 1956, p. 435-438.

Menzel, D. H., Smith, H. J., and Bell, B., "The Operation of a Solar Observatory at Sacramento Peak, New Mexico," Solar Department of Harvard College Observatory, AFCRC-TR-58-288, AF 19(604)-146, 1958, 32 pp., AD-210504.

Menzel, D. N., and Boyd, L. G., "The World of Flying Saucers - A Scientific Examination of a Major Myth of the Space Age," Doubleday, 1963, 302 pp.

Moore, A. F., (See Van de Hulst, F. C., 1962)

Naugle, J. E., (See Newell, H. E., 1960)

Naugle, J. E., (See Newell, H. E., 1960)

Naugle, J. E., "Space Environment. Section IV. Space Radiation Levels," Nucleonics, V. 19, Apr. 1961, p. 89-91.

Nayler, J. L. (Editor), "Advances in Space Technology," Newness, 1962, 215 pp.

Newburn, R. L., "Planetary Astrophysics and the Exploration of the Solar System," NASA-University Conference on the Science and Technology of Space Exploration, Chicago, November 1-3, 1962, NASA SP-11, V. 1, p. 197-206.

Newell, H. E., and Stehling, K. R., "Blueprint for Space Research," Aviation Age and Space Technology, V. 28, Mar. 1958, p. 28-29, 106.

Newell, H. E., and Naugle, J. E., "Results of Satellites and Space Probe Observations of Radiation Environment," SAE-AFOSR, Astronautic Symposium, Los Angeles, California, October 12-14, 1960, Preprint 230P, 9 pp.

Newell, H. E., "The Space Environment," Science, V. 131, 12 Feb. 1960.

Newell, H. E., and Naugel, J. E., "Radiation Environment in Space," Science, V. 132, 1960, p. 1465-1472.

Newell, H. E., "Space Science," Science, V. 139, No. 3554, 1963, p. 464-471.

Odishaw, H., (See Berkner, L. V., 1961)

Odishaw, H. (Editor), "The Challenges of Space," University of Chicago Press, 1962, 379 pp.

Ordway, F. I. (Editor), "Advances in Space Science and Technology," V. 3, Academic Press, 1961, 482 pp.

Ordway, F. I., Gardner, J. P., Sharpe, M. R., and Wakeford, R. C., "Applied Astronautics," Prentice-Hall, 1963, 449 pp.

Otto, J., "Space Visitors," Space Flight. Journal, V. 6, Feb. 1954, p. 4-7.

Parker, E. N., "What Do We Really Know about Conditions in Interplanetary Space," SAE Journal, V. 68, Nov. 11, 1960, p. 26-28.

Parker, E. N., "The Solar Wind," Journal of Research, V. 65, No. 6, 1961, p. 537-542.

Parks, R. J., "The U. S. Planetary Exploration Program," Astronautics, V. 6, No. 5, 1961, p. 22-25.

Rowland, E. N., "A Note on Space Travel in a Gravitational Field," British Interplanetary Society. Journal, V. 16, Oct.-Dec. 1957, p. 216-221.

Sailor, D., (See Riley, F. E., 1962)

Salisbury, J. W., (See Smith, B. A., 1962)

Sanger, E., "Astronautics," Aero Digest, V. 71, Dec. 1955, p. 21.

Schachter, O., (See Von Braun, W., 1952)

Schaffer, H. J., "Radiation Hazards in Space Exploration," Lunar and Planetary Exploration Colloquium. Proceedings, V. 1, No. 6, 1959, p. 23-31.

Seifert, H. (Editor), "Space Technology," John Wiley and Sons, 1959.

Sharpe, M. R., (See Ordway, F. I., 1963)

Shaw, J. H., "Natural Environment of Interplanetary Space," WADC-Phase Technical Note 847-4, AF 33(616)-5914, 1960, 132 pp., AD-250230.

Shuf, A. L., "Military Space, Taking the High Ground," Space Trajectories, a Symposium Sponsored by the Astronautical Society, the Advanced Research Projects Agency, and Radiation, Incorporated, Orlando, Florida, Dec. 14-15, 1959, New York, Academic Press, 1960, p. 1-8.

Shephard, L. R., "Intersellar Flight," British Interplanetary Society. Journal, V. 11, No. 4, 1952, p. 149.

Shternfeld, A., "Soviet Space Science," Basic Books, 1959.

Simak, C. D., "The Solar System, Our New Front Yard," St. Martins Press, 1962.

Singer, S. F., "Scientific Problems in Cislunar Space and Their Exploration with Rocket Vehicles," Astronautica Acta, V. 5, No. 2, 1959, p. 116-125.

Skhloveskiy, I. S., "Is Communication Possible with Intelligent Beings on Other Planets," Priroda, No. 7, 1960, p. 21-30, Translated by NASA TT-F-8009.

Smith, H. J., (See Menzel, D. H., 1958)

Smith, B. A., and Salisbury, J. W., "Final Report on Evaluation of the Cloudcroft, New Mexico Site for a United States Air Force Planetary Observatory," AFCRL-1064, AF 19 (604)-7443, 1962, 101 pp.

Sommet, C. P., (See Coleman, P. J., 1961)

Spady, A. A., "An Exploratory Investigatory of Jet-Blast Effects on a Dust-Covered Surface at Low Ambient Pressure," NASA TN D-1017, 1962, 14 pp.

Staff of the Royal Radar Establishment, "The 45-Foot Radio Telescope at the Royal Radar Establishment," Nature, V. 180, 1957, p. 1225.

Stehling, K. R., (See Newell, H. E., 1958)

Stephenson, G. B., "Gas-Dust Interaction in the Accretion of Interstellar Dust by the Sun," Astrophysical Journal, V. 126, Jul. 1957, p. 195-201.

Strass, H. K., (See Gilruth, R. R., 1960)

Valley, S. N. (Editor), "Space and Planetary Environments," Air Force Surveys in Geophysics No. 139, AFCRL-62-270, 1962, 219 pp.

Van de Hulst, H. C., "Empty Space," Scientific American, V. 193, Nov. 1955, p. 72-80.

Van de Hulst, H. C., Moore, A. F., and De Jager, C. (Editors), "Space Research II," John Wiley and Sons, 1962.

Vestine, E. H., (See Buckheim, R. W., 1958)

Vestine, E. H., et al., "Recent Advances in Space Science," American Geophysical Union. Transactions, V. 44, No. 1, 1963, p. 137-143.

Von Braun, W., Kaplan, J., Huber, H., Ley, W., Schachter, O., and Whipple, F., "Across the Space Frontier," Edited by Rayn, C., The Viking Press, 1952.

Wakeford, R. C., (See Ordway, F. I., 1963)

Watson, F. G., "Between the Planets," Harvard University Press, 1952.

Weyl, A. R., "Towards Space Flight," Aeronautics, V. 38, Mar. 1958, p. 32-35.

Whipple, F., (See Von Braun, W., 1952)

Wilson, A. G., "Syntax of Space Exploration," Lunar and Planetary Colloquium. Proceedings, V. 1, No. 2, 1958, p. 16-19.

Wilson, A. G., (See Buckhein, R. W., 1958)

Winzen, G. E., "Bridgehead in Space," Interavia, V. 12, No. 10, 1957, p. 1040-1041.

Wolfle, D., (See Green, J., 1960)

Young, L. B., "Exploring the Universe," McGraw-Hill, 1963, 487 pp.

Zelikoff, M., "The Threshold of Space," Pergamon Press, 1956, 342 pp.

-----, "Space Travel - A Selected List of Titles for Lecturers and Students, Special Bibliography No. 2," Army Library, Washington, Mar. 1956, 11 pp.

-----, "The Scientific Objectives of the Able-3 Program," Space Technology Laboratory, May 1959.

-----, "Hearings Before the NASA Authorization Subcommittee of the Committee on Aeronautical and Space Sciences, United States Senate, Part I," Scientific and Technical Presentations, Apr. 1959.

-----, "Space Handbook - Astronautics and Its Applications," Staff Report of the Select Committee on Astronautics and Space Exploration, 86th Session of U. S. Congress, 1959.

-----, "Space Handbook - Astronautics and Its Implications," Compiled by Rand Corporation, U. S. Government Printing Office, 252 pp.

-----, "Air Force Systems Command Proposed Support of Extraterrestrial Study Program," V. 1, 1963, 29 pp.

-----, "Air Force Systems Command Proposal Support of Extraterrestrial Study Program," V. 2, 1963, 196 pp.

-----, "Air Force Systems Command Proposal Support of Extraterrestrial Study Program," V. 3, 1963, 25 pp.

SPACE ENVIRONMENTAL SIMULATION

Anonymous, "High Vacuum Orbital Simulator at Lockheed," Test Engineer, V. 4, No. 6, 1960, p. 20.

Anonymous, "Test Chamber Reaches the Stars," Iron Age, V. 190, No. 10, 1962, p. 77.

Bechtel Corporation, "Space Chamber Study," Phase I Technical Report, AEDC, AF 40(600)-952, 1961, 110 pp.

Erway, D. D., McDowell, D. E., and Metzger, H. W., "Study of Data Transmission System for a Space Simulation Chamber," Electro-Optical System, AEDC-TDR-62-162, AF 40(600)-947, 1962, 224 pp.

Foshag, F. C., Grady, D., Lee, D. E., and Hostetter, R. S., "Space Environment Simulation System Management," Institute of Aerospace Science, Paper 63-59, 1963, 38 pp.

Geiger, K. A., (See Hnilicka, M. P., 1963)

Geiger, K. A., (See Hnilicka, M. P., 1963)

Grady, D., (See Fashag, F. C., 1963)

Hnilicka, M. P., and Geiger, K. A., "Simulation of Deep Space Environment for Working Vehicles," Institute of Aerospace Science, Paper 63-56, 1963, 27 pp.

Hnilicka, M. P., and Geiger, K. A., "Simulating Interplanetary Space," Astronautics and Aerospace Engineering, Jul. 1963, p. 31-35.

Hostetter, R. S., (See Foshag, F. C., 1963)

Lee, D. E., (See Foshag, F. C., 1963)

Levantine, A. D., and Lipkis, R. P., "Solar Simulation in Space Environment," Institute of Aerospace Science, Paper 63-57, 1963, 16 pp.

Lipkis, R. P., (See Levantine, A. D., 1963)

Litton Industries, "The Inhabited High Vacuum Laboratory," Research Laboratories of Litton Industries, AFOSR-TR-58-14, AF 18(600)-1498, 1958, 97 pp., AD-148105.

McDowell, D. E., (See Erway, D. D., 1962)

Metzger, H. W., (See Erway, D. D., 1962)

Pinson, J. D., "Research for Space Simulation in Design of Ground Test Facilities," Paper Presented at the Third Annual Symposium on Space Environmental Simulation, Valley Forge, Pennsylvania, 1962, 16 pp.

Sherrell, F. G., "Investigation of the Contamination of Reflector Surfaces of Infrared Radiators to Be Used in Space Simulators," AEDC-TDR-62 233, 1962, 34 pp.

Simons, J. C., "Simulation of Environmental Conditions in Near Space," ARS Journal Preprint 984-50.

Tempelmeyer, K. E., "Interplanetary Environment Simulation Problems," 1960 Proceedings of the National Aeronautical Electronics Conference, Dayton, Ohio, IRE, 1960, p. 328.

1/2
FRAMES

GENERAL

Alfren, H., "The Early History of the Moon and the Earth," *Icarus*, V. 1, No. 4, 1963, p. 357-363.

Alter, D., "Introduction to the Moon," Griffith Observatory, 1958.

Alter, D., "Evolution of the Moon," Lunar and Planetary Exploration Colloquium. Proceedings, V. 2, No. 2, 1960, p. 1-6.

Alter, D., "The Evolution of the Moon," Astronomical Society of the Pacific. Publications, V. 73, 1961, p. 5-14.

Alter, D., "Pictorial Guide to the Moon," Crowell, 1963, 183 pp.

Anonymous, "Advance Man to the Moon," *Aero Digest*, V. 63, 1951, p. 25-32.

Anonymous, "The Moon - Our First Neighbor in Space," *Vastona*, V. 1, No. 1, 1953, p. 5-10. (Serbo-Croat)

Anonymous, "Lunar Interlude," *Vectors*, V. 2, No. 4, 1960, p. 1-4.

Asimov, I., "The Moon's Most Baffling Mystery," *Space Age*, V. 1, No. 3, 1959, p. 17-19.

Baldwin, R. B., "The Face of the Moon," University of Chicago Press, 1949, 239 pp.

Baldwin, R. B., "The Measure of the Moon," University of Chicago Press, 1963, 600 pp.

Barabashov, N. P., "New State in the Study of the Moon," *Akademiya Nauk SSSR. Vestnik*, No. 10, 1960, p. 32-36.

Barabashov, N. P., Bronshten, V. A., et al., "The Moon," Literary House of Physics-Mathematical Literature, Moscow, 1960, 384 pp., AD-261784.

Barabashov, N. P., "Physical Condition on Moon and Planets," *JPRS (Series)* 4549, Apr., 1961, 35 pp.

Both, E. E., "A History of Lunar Studies I," Buffalo Museum of Science. Magazine, V. 41, 1960, p. 20-23.

Both, E. E., "A History of Lunar Studies II," Buffalo Museum of Science. Magazine, V. 41, 1960, p. 46-50.

- Both, E. E., "A History of Lunar Studies III," Science on the March, V. 41, 1961, p. 70-73.
- Both, E. E., "A History of Lunar Studies IV," Science on the March, V. 41, 1961, p. 89-94.
- Breberstein, M., "Untersuchungen Ueber Den Ursprung und Die Ausbildung Der Gegenwaertigen Anordnung Des Weltgebaeudes," Darmstadt, 1802.
- Bronshten, V. A., (See Barabashov, N. P., 1960)
- Brown, H., (See Jastrow, R., 1960)
- Buettner, K. K., Davis, M. H., Kern, J. W., and Lamar, D. L., "Studies of the Physical Properties of the Moon and the Planets," Quarterly Technical Progress Report (7), AR-15-JPL, NASA N-62-11806, Rand Corporation, Apr. 1962.
- Buettner, K. K., "The Moon's First Decimeter," California Institute of Technology, Jet Propulsion Laboratory Memorandum RM-3263, Sept. 1962.
- Bullen, K. E., "Origin of the Moon," Nature, V. 167, 1951, p. 29.
- Bunyan, I. T., "The Moon," Advancement of Science, V. 18, 1961, p. 139-147.
- Burgess, E., "Why go to the Moon," Interview, V. 14, Nov. 1959, p. 1387.
- Cameron, A. G., "The Moon," Science and Technology. International, V. 5, 1962, p. 24.
- Cocca, A. A., "Principles for a Declaration with Regard to the Juridical Nature of the Moon," International Astronautical Congress, 9th, 1958, 4 pp.
- Darwin, G. H., "The Tides," Houghton Mifflin, 1898.
- Dauvillier, A., "L'Origin Photochimique de la Vie," Masson, Paris, 1958.
- Davis, M. H., (See Buettner, K. K., 1962)
- Elger, T. G., "Selenographical Notes," The Observatory, V. 13, No. 168, 169, 171, 172, 173, 174, 175, 1890-1891.
- Escher, B. G., "Moon and Earth," Koninklijke Nederlandsche Akademie Van Wetenschappen. Proceedings, V. 42, No. 2, 1939, p. 127-138. (English)
- Fielder, G., "Structures of the Moon's Surface," Pergamon Press, 1961, 266 pp.

- Firsoff, V. A., "Strange World of the Moon," Basic Books, 1959.
- Firsoff, V. A., "Selenological Studies, I," British Astronomical Association. Journal, V. 71, 1961, p. 149.
- Gamow, G., "The Moon," Schuman, 1953, 118 pp.
- Gauzit, J., "What we know of the Moon and Planets," Science et Vie, Special Astronautical Issue, 1952, p. 40-54. (French)
- Gold, T., "Space Research in Relation to the Moon and the Nearer Planets," Royal Society. Proceedings, Series A, V. 253, No. 1275, 1959.
- Gold, T., (See Jastrow, R., 1960)
- Gold, T., "The Moon," Space Astrophysics, Edited by W. Liller, McGraw-Hill, 1961.
- Gruithuisen, F., "Selenognostische Fragmente," Vienna, 1821-1823.
- Gruithuisen, F., "Entdeckung Vieler Deutlichen Spurender Mondbewohner," Nurenberg, 1824.
- Gruithuisen, F., "Analekten Fuer Erdund Himmelskunde," Munich, 1828-1831.
- Gruithuisen, F., "Neuve Analekten," Munich, 1832-1836.
- Gruithuisen, F., "Natuswssenschaftlich-Astronorisches Jahrbuch," Munich, 1838-1847.
- Gruler, H. E., King, W. L., and Link, S., "Moon Illusion, An Event in Imaginary Space," Science, V. 139, No. 3556, 1963, p. 750-751.
- Hackman, R. J., (See Shoemaker, E. M., 1960)
- Hazard, C., Mackey, M. B., and Shimmins, A. J., "Investigation of the Radio Source 3G 273 by the Method of Lunar Occultations," Nature, V. 197, No. 4872, 1963, p. 1037-1039.
- Hirt, J., "Astronomy Part II - The Moon," Rose Technic, V. 72, No. 2, 1960, p. 18-19, 36.
- Holmes, J., "America on the Moon," Lippincott, 1962.
- Jastrow, R., Urey, H., Gold, T., and Brown, H., "Discussing the Moon," Spaceflight, V. 2, 1960, p. 167-173.
- Jastrow, R., et al., "NASA Lunar Research Conference," Astronautics, V. 5, No. 5, 1960, p. 45, 72, 74, 75.

- Jones, A. L., Wickham, P. L., and Ryker, N. J., "Lunar Observation Systems," ARS, Semi-Annual Meeting, Los Angeles, California, May 9-12, 1960, Preprint 1197-60, 8 pp.
- Kern, J. W., (See Buettner, K. K., 1962)
- King, W. L., (See Gruler, H. E., 1963)
- Kopal, Z. (Editor), "Origin and History of the Moon," Academic Press, 1961.
- Kopal, F., and Mikhailov, Z. K. (Editors), "The Moon," Academic Press, 1962, 571 pp.
- Krause, H., "A Further Contribution to Selenology," Sterne, V. 28, 1952, p. 199-202. (German)
- Kuiper, G. P., "The Moon," Journal of Geophysical Research, V. 64, No. 11, 1959, p. 1713-1719.
- Lamar, D. L., (See Buettner, K. K., 1962)
- Landerer, J. J., "La Evolution Del Globo Lunar," Barcelona, 1910.
- Link, S., (See Gruler, H. E., 1963)
- Mackey, M. B., (See Hazard, C., 1963)
- Markov, A. V., "The Moon - A Russian View," (Russian Astronomic Observatory, Pulkovo, USSR), University of Chicago Press, 1962, 391 pp.
- Mikhailov, Z. K., (See Kopal, F., 1962)
- Moore, P. A., "What we know about the Moon," British Interplanetary Society. Journal, V. 11, Jan. 1952, p. 19-40.
- Moore, P. A., "A Guide to the Moon," W. W. Norton Company, 1953.
- Moore, P. A., (See Wilkins, N. P., 1955)
- Nagy, F., "Instructions for the Use of Mutual Moon Visibility Charts," Lincoln Laboratory, Massachusetts Institute of Technology, ESD-TDR-62-95, AF 19(604)-7400, 1962, 9 pp., AD-276879.
- Nininger, N. H., "Do we see a Lunar Tunnel," Sky and Telescope, V. 11, 1952, p. 192-193.
- Opik, E. J., "Tidal Deformations and the Origin of the Moon," Astronomical Journal, V. 66, 1961, p. 60-67.

Pickering, W. H., "The Moon," Doubleday, 1903.

Proctor, R., "The Moon, Her Motions, Aspect, Scenery and Physical Condition," London, 1873.

Rand Corporation, "Quarterly Technical Progress Report II - Studies of the Physical Properties of the Moon and Planets," Rand Corporation, Report No. RM-2711-JPL, Dec. 31, 1960.

Richardson, R. S., "Astronomical Observations of the Moon," Astronomical Society of the Pacific. Leaflet, No. 219, May 1947.

Richardson, R. S., "Man and the Moon," Commentator, 1961, 171 pp.

Rudaux, L., "La Lune et son Histoire," Paris, 1947.

Ruskol, E. L., "The Origin of the Moon-I. Formation of a Swarm of Bodies around the Earth," Soviet Astronomy - AJ, V. 4, 1961, p. 657

Ryker, N. J., (See Jones, A. L., 1960)

Salisbury, J. W., "An Introduction to the Moon," Geophysical Research Directorate, AFCRL TN-60-456, 1960, 30 pp.

Schroeter, J. H., "Selenotopographische Fragmente Zur Genauern Kenntnirs Der Mondflacke, Ihrer Erlittenen Veranderungen und Atmosphere," Gottingen, Vandenhoech-Ruprecht, V. 1 and 2, 1791 and 1802.

Schwarz, H. G., "Governing the Moon," Astronautical Sciences. Journal, V. 10, No. 2, 1963, p. 54-57.

Sharonov, V. V., "The Moon and its Nature," Priroda, No. 1, 1960, p. 9-19. (Russian)

Shimmins, A. J., (See Hazard, C., 1963)

Shoemaker, E. M., and Hackman, R. J., "Stratigraphic Basis for a Lunar Time Scale," International Astronomical Union Symposium 14, The Moon, Leningrad, Academic Press, 1960.

Singer, S. E., "Military Potential of the Moon," Air University Quarterly Revue, V. 11, No. 2, 1959, p. 31-53.

Stumpff, I. K., "Remarks on Hills Lunar Theory, Part I," NASA TN D-1540, 1963, 13 pp.

Stumpff, I. K., "Remarks on Hills Lunar Theory, Part II," NASA TN D-1541, 1963, 12 pp.

Taille, J., "The Earth and the Moon," Translated by R. Matthews, Walker and Company, 1963, 148 pp.

Urey, H. C., "The Cosmic Abundances of Potassium, Uranium and Thorium and the Heat Balances of the Earth, the Moon and Mars," National Academy of Sciences. Proceedings, V. 41, No. 3, 1955, p. 127-144.

Urey, H. C., "The Cosmic Abundances of Potassium, Uranium and Thorium and the Heat Balances of the Earth, the Moon and Mars," National Academy of Sciences. Proceedings, V. 42, 1956, p. 339-891.

Urey, H. C., "Primary and Secondary Objects," Symposium on Problems in Space Exploration, Washington, D. C., Apr. 1959.

Urey, H. C., "Primary and Secondary Objects," Journal of Geophysical Research, V. 64, 1959, p. 1721-1737.

Urey, H., (See Jastrow, R., 1960)

Urey, H. C., "Science in Space - The Moon," National Academy of Science, National Research Council, 1960, 10 pp.

Urey, H. C., "Criticism of the Melted Moon Theory," Journal of Geophysical Research, V. 65, 1960, p. 358-359.

Urey, H. C., "The Duration of Intense Bombardment Processes on the Moon," Astrophysical Journal, V. 132, 1960, p. 502-503.

Urey, H. C., "The Origin and Nature of the Moon," Endeavour, V. 19, No. 74, 1960, p. 87-99.

Viete, G., "Geologie und Selenologie," Sterne, V. 24, 1953, p. 4-10.

Warner, B., "Holistic Approach to Selenology," Nature, V. 191, 1961, p. 586.

Whipple, F. L., "Earth, Moon and Planets," Harvard University Press, 1941.

Whitaker, E. A., "The Moon - Earth's Nearest Neighbour," Spaceflight, V. 1, 1957, p. 52-60.

Wickham, P. L., (See Jones, A. L., 1960)

Wilkins, J., "The Discovery of a New World, or a Discourse Tending to Prove that there may be Another Habitable World in the Moon, and Concerning the Possibility of a Passage Thither," London, 1640.

Wilkins, N. P., and Moore, P. A., "The Moon," Faber and Faber, London, 1955.

ATLASES, CHARTS, DRAWINGS, MAPS, PHOTOGRAPHS, ETC.

Anonymous, "Moon Wall Chart," Hamberg-Berlin-Den Haag, Falk-Verlag, 1959, Nachrichtenblatt der Vereinigung der Sternfreunde (Berlin) V. 9, No. 3, 1959, p. 8.

Anonymous, "Data on the Russian Moon Rocker III and Photographs of The Back Side of the Moon," Naturwissenschaftlich Rundschau, V. 12, No. 12, 1959, p. 466-467. (German)

Antonov, S., Bogomolov, K. S., Kirillov, N. I., and Uspenskii, V. I., "Photographic Processes used in Making the First Photographs of the Far Side of the Moon," Translated by John Hopkins University, Applied Physics Laboratory, TG230-282, Mar. 1962, 14 pp.

Arthur, D. G., "Contributions to Selenography No. 4, Selenographic Positions from Photographs," Published by Author, 1955.

Arthur, D. G., "Some Lunar Sketches Made by D. G. Arthur at the Yerkes Observatory," British Astronomical Association. Journal, V. 70, 1960, p. 301-304.

Arthur, D. G., and Whitaker, E. A. (Compilers) and Kuiper, G. P. (Editor), "Orthographic Atlas of the Moon (Supplement No. 1 to the Photographic Lunar Atlas)," University of Arizona Press, 1960.

Baldwin, R. B., "A Lunar Conture Map," Sky and Telescope, V. 21, 1961, p. 84-85.

Balfe, J. D., "Moon Camera Values $\Delta t = t - t_0$," Australian Journal of Physics, V. 16, No. 2, 1963, p. 279-281.

Barabashov, N. P., "Results of Photometric Investigations of the Moon and the Planets," Astronomical Observatory of Kharkov University, Kharkov, 1957.

Barabashov, N. P., Mikhailov, A. A., and Lipsky, Y. N., "Atlas Obratnoi Storones Lunny," USSR Academy of Sciences, Moscow, 1960. (Russian)

Barabashov, N. P., and Lipsky, Y. N., "The First Results Obtained from Photographs of the Invisible Side of the Moon," Soviet Physics. Doklady, V. 4, No. 6, 1960, p. 1165-1169.

Barabashov, N. P., Mikhailov, A. A., and Lipsky, Y. N., "Atlas of the Other Side of the Moon," Pergamon Press, 1961, 141 pp.

Barabashov, N. P., Mikhailov, A. A., and Lipsky, Y. N. (Editors),
"An Atlas of the Moon's Far Side," Interscience and Sky, 1961, 167 pp.

Blum, G., "Measures of Photochemical Energy During the Total Lunar
Eclipse of September 26, 1931," Academie des Sciences. Comptes Rendus,
V. 193, 1931, p. 647-649.

Bogomolov, K. S., (See Antonov, S., 1962)

Breido, I. I., Markelova, A. A., and Shcheglov, D. E., "Reliable
Identification of Features on the Far Side of the Moon from the First
Photographs," Translated by Johns Hopkins University, Applied Physics
Laboratory, TG 230-TG 290, Apr. 1962, 18 pp.

Bulow, K. Von., "Views on the Evaluation of the First Photographs of
The Back Side of the Moon," Beitrage Zur Geophysik, V. 69, No. 3,
1960, p. 129-139. (German)

Campan, C. F., "Mapping the Moon," Space World, V. 1, No. 6, 1961,
p. 14-19, 49-50, 52.

Carder, R. W., "Phototopography for the 1-1,000,000 Lunar Charts,"
Photogrammetric Engineering, V. 27, No. 3, 1961, p. 386-390.

Carstarphen, J. A., "Army Lunar Construction and Mapping Program,"
House Reports on Public Bills, 86th Congress, Report of Committee on
Science and Astronautics, Jun. 22, 1960, 25 pp.

Chemla-Lamech, F., "Carte Topographique de la Lune," Toulouse, 1934.

Cimino, M., "L Altra Faccia Della Luna - Commento Di Un Astronomo all
Impressa Del Lunik II," Missili, 1959, p. 19-21. (Italian)

Davies, M. E., "Are the Lunik II Photos Fakes," Astronautics, V. 5,
No. 6, 1960, p. 46, 48, 49.

DeBlanc, P., "Satellite System Would Map Moon with Erasable Tape,"
Electronic Design, V. 9, No. 15, 1961, p. 8-9.

DeVaux, P., "A New Map of the Moon Conceived for Astronauts," Ciencia
Aeronautica (Venezuela), V. 7, No. 71, 1960, p. 33.

Fesenkov, "Photometric Peculiarities of the Moon," Soviet Astronomy -
AJ, V. 4, No. 3, 1960, p. 468-472.

Graff, K., "On the Photographic Photometry of the Surface Formations
of the Full Moon," Osterreichischen Akademie Der Wissenschaften.
Sitzungsberichte. Abteilung IIA, V. 157, No. 15, 1949, p. 17-24.
(German)

Hackman, R. J., and Mason, A. C., "Engineer Special Study of the Surface of the Moon," U. S. Geological Survey, Military Geology Branch, Scale Approximately 1-3,800,000, U. S. Army Map Service, July 1960.

Hackman, R. J., "Photointerpretation of the Lunar Surface," Photogrammetric Engineering, 1961, p. 377-386.

Hoffmeister, C., "Pictures of the Invisible Side of the Moon," Die Sterne, V. 36, No. 3/4, 1960, p. 49-52. (German)

Humbert, P., "Interpretation of Lunar Maps," Pontificia Accademia Della Scienze I Nuovi Lincei (Vatican) Memoria, V. 15, 1931, p. 333-343.

Iakovkin, A. A., "Baricentric Coordinates of the Lunar Crater Mosting A," Kazan Universitet. Uchenye Zapiski, V. 115, No. 13, 1955, p. 3-20. (Russian)

Ishii, S., Kubokawa, K., and Torao, M., "Positions and Semidiameters of the Moon and Sun from Solar Eclipse Observations," Japanese Journal of Astronomy and Geophysics, V. 12, No. 2, 1935, p. 121-130.

Katz, A. H., "Analysis of Lunik 3 Photographs," Lunar and Planetary Exploration Colloquium. Proceedings, V. 2, No. 2, 1960, p. 27-44.

Kirillov, N. I., (See Antonov, S., 1962)

Klein, "Lunar Photographs Taken by the 36-inch Lick Telescope," Sirius, March 1891.

Kopal, Z., "Essentials for Mapping the Moon," American Scientist, V. 47, No. 4, 1959, p. 505-508.

Kubokawa, K., (See Ishii, S., 1935)

Kuiper, G. P., (See Arthur, D. G., 1960)

Lijaskii, Y. N., "The Photography of the Reverse Side of the Moon, Techniques and Preliminary Results," Soviet Astronomy - AJ, V. 4, 1961, p. 976-989.

Link, F., "Photometric Study of Partial Lunar Eclipse of September 14, 1932," Academie des Sciences. Comptes Rendus, V. 195, 1932, p. 1236-1238.

Link, F., "Photometric Theory of the Penumbra During Eclipses of the Moon," Casopis Pro Pestovani Matematik A Fisiky, V. 72, No. 2, 1947, p. 65-77.

Link, F., "Problems Arising from the Photometry of Lunar Eclipses," International Council of Scientific Unions. Sixth Report of the Commission for the Study of Relations between Solar and Terrestrial Phenomena, 1948. The Council, Gonville and Caius College, Cambridge, England, p. 174-175. (French)

Lipsky, Y. N., (See Barabashov, N. P., 1960)

Lipsky, Y. N., (See Barabashov, N. P., 1960)

Lipsky, Y. N., (See Barabashov, N. P., 1961)

Lipsky, Y. N., "Charting the Hidden Side of the Moon," Sky and Telescope, V. 21, 1961, p. 133-139.

Lipsky, Y. N., "The Photography of the Reverse Side of the Moon, Techniques and Preliminary Results," Soviet Astronomy - AJ, V. 4, No. 6, 1961, p. 976-989.

Lipsky, Y. N., "See Barabashov, N. P., 1961)

Loewy, M., and Puiseaux, P., "Atlas Photographique de la Lune," Paris, 1896.

Lueder, D. R., "Mapping Moon," Consulting Engineer, V. 14, No. 6, 1960, p. 120-124.

Markelova, A. A., (See Breido, I. I., 1962)

Marks, A., "Lunar Mapping by use of Radar," Urania, V. 32, No. 3, 1961, p. 75-79. (Polish)

Martha, A., "A List of Published Lunar Sketches and Photographs Arranged According to the Sun's Position," Royal Astronomical Society. Monthly Notices, V. 51, No. 3, 1891.

Martz, E. P., "High-Resolution Photography of the Moon with very Short Exposure Times," Abstract of Paper Presented at the 114th Meeting of the American Astronomical Society, 22-24 July 1963, in Astronomical Journal, V. 68, No. 8, 1963, p. 533-547.

Mason, A. C., "Lunar Mapping," Military Engineer, V. 52, 1960, p. 62-63.

Mason, A. C., (See Hackman, R. J., 1960)

Mietelski, J., "A Simple Method for Using the Weimer Atlas," Post. Astr. Polska., V. 1, No. 4, 1959, p. 263-265. (Polish)

Mikhailov, A. A., (See Barabashov, N. P., 1960)

Mikhailov, A. A. "The First Map of the Far Side of the Moon,"
Akademiya Nauk SSSR. Vestnik, V. 31, 1961, p. 39-42, Translated
by NASA, TT-F-8083.

Mikhailov, A. A., (See Barabashov, N. P., 1961)

Mikhailov, A. A., (See Barabashov, N. P., 1961)

Minnaert, M. J., "The Reciprocity Principle in Lunar Photometry,"
Astrophysical Journal, V. 93, 1941, p. 403-410.

Minnaert, M. J., "Photometry of the Moon," The Solar System, V. 3,
Planets and Satellites, Edited by G. P. Kuiper, University of
Chicago Press, 1961, p. 213-248.

Moore, P., "The Other Side of the Moon," British Astronomical
Association. Journal, V. 70, No. 1, 1960, p. 60-62.

Mueller, K., "Studien an Mondphotographien," Leipzig, 1926.

Prinz, W., "New Photographs of the Moon Taken at the Mount Hamil-
ton and Paris Observatories," Ciel et Terre, No. 19, Dec. 1890.

Puiseaux, P., (See Loewy, M., 1896)

Riccioli, G. B., "Atmagestum Novum," Bologna, 1651.

Rodman, R. B. (Translator), "An Atlas of the Moon's Far Side,"
Interscience Publishers, 1961.

Saunders, S. A., "The Determination of Selenographic Positions and
the Measurement of Lunar Photographs," Royal Astronomical Society.
Monthly Notices, V. 65, No. 5, 1905, p. 458-473.

Schmidt, J. J., "Charte der Gebirge des Mondes," Dietrich Reimer,
Berlin, 1878.

Shcheglov, D. E., (See Brucido, I. I., 1962)

Struve, O., "Photometry of the Moon," Sky and Telescope, V. 20,
No. 2, 1960, p. 70-73.

Ter-Organian, L. (Translator), "Atlas of the Other Side of the Moon,"
Pergamon Press, 1961.

Torao, M., (See Ishii, S., 1935)

Torelli, M., "Photographic Photometry of the Penumbra During the Lunar Eclipse of March 13-14, 1957," *Accademia Nazionale Dei Lincei. Rendiconti*, V. 28, No. 1, 1960, p. 50-56. (Italian)

Tschunko, H. A., "Theoretical Photometry of the Moon," *Zeitschrift fuer Astrophysik*, V. 26, No. 2-3, 1949, p. 279-294. (German)

USAF, "Lunar Reference Mosaic, LEM-1A," Scale 1-10,000,000, Aeronautical Chart and Information Center, 1960.

Uspenskii, V. I., (See Antonov, S., 1962)

Vaughn, F., "A Map of the Lunar Crater Cones and Suggested Work for Amateurs," *Royal Astronomical Society of Canada. Journal*, V. 37, 1943, p. 393-397.

Watts, C. B., "Lunar Mapping Problems," *Georgetown Observatory*, No. 14, 1960, p. 25-27.

Webb, T. W., "Celestial Objects for Common Telescopes," London, 1859.

Weinek, L., "Drawings of the Moon," *Astronomical Society of the Pacific*, V. 2, No. 10, 1890.

Weinek, L., "Reply to the Criticism of M. M. Prinz Concerning my Lunar Drawings," *Ciel et Terre*, No. 24, Feb. 1891.

Whitaker, E. A., (See Arthur, D. G., 1960)

Wilkey, R. L., "The Moon's Photometric Function," *Nature*, V. 200, No. 4911, 1963, p. 1056-1058.

Wilkins, H. P., "Moon Maps," MacMillan, 1959, 38 pp.

CONFIGURATION AND INTERNAL STRUCTURE

Adams, A. N., and Bestul, S. M., "Meridian Observations of the Moon 1958-1959," *Astronomical Journal*, V. 66, 1961, p. 36.

Alexandrov, I., "The Lunar Gravitational Potential," *Advances in the Astronautical Sciences*, V. 5, 1959, p. 320-324.

Government Printing Office, "Almanac," Washington, Published Yearly

Anonymous, "On the Rotation of the Moon," *Le Galilee*, Dec. 1890.

Bartels, J., and Fanslau, G., "Geophysical Lunar Almanac," *Terrestrial Magnetism and Atmospheric Electricity*, V. 43, No. 2, 1933, p. 155-158.

Belorizky, D., "Secular Acceleration of the Moon," *Bulletin Astronomique*, V. 9, No. 3, 1934, p. 149-167.

Benedikt, E. T., "Exact Determination of the Lunar Mass by Means of Selenoid Satellites," *Nature*, V. 192, 1961, p. 442-443.

Bestul, S. M., (See Adams, A. N., 1961)

Bolt, B. A., "Spheroidal Oscillations of the Moon," *Nature*, V. 188, 1960, p. 1176-1177.

Brown, E. W., "An Introductory Treatise on the Lunar Theory," Cambridge University Press, 1896, 292 pp.

Brown, E. W., "Theory of the Motion of the Moon, Containing a New Calculation of the Expressions for the Coordinates of the Moon in Terms of the Time - Part 1," *Royal Astronomical Society. Memoirs*, V. 53, 1899, p. 39-116.

Brown, E. W., "Theory of the Motion of the Moon, Containing a New Calculation of the Expressions for the Coordinates of the Moon in Terms of the Time - Part 2," *Royal Astronomical Society. Memoirs*, V. 53, 1899, p. 163-202.

Brown, E. W., "Theory of the Motion of the Moon, Containing a New Calculation of the Expressions for the Coordinates of the Moon in Terms of the Time - Part 4," *Royal Astronomical Society. Memoirs*, V. 57, 1899, p. 51-145.

Brown, E. W., "Theory of the Motion of the Moon, Containing a New Calculation of the Expressions for the Coordinates of the Moon in Terms of the Time - Part 5," *Royal Astronomical Society. Memoirs*, V. 59, 1899, p. 1-103.

Brown, E. W., "Inequalities in the Motion of the Moon Due to the Direct Action of the Planets," MacMillan, 1908.

Brown, E. W., and Hedrick, H. B., "Tables of the Motion of the Moon," Yale University Press, 1920.

Brown, E. W., "Introduction Treatise on the Lunar Theory," MacMillan, 1933.

Brown, E. W., "Calculation of the Term in the Motion of the Lunar Perigee with Characteristic E_4 ," Royal Astronomical Society. Monthly Notices, V. 98, 1937, p. 170-171.

Cameron, W. S., and O'Keefe, J. A., "Evidence of Isotasy and Differentiation on the Moon," Astronomical Journal, V. 66, 1961, p. 280.

Carr, R. E., and Kovack, R. L., "Toroidal Oscillations of the Moon," Icarus, V. 1, No. 1, 1962, p. 75-76.

Carruthers, J. N., "Comments on a Paper by H. Mandelbaum - Variation of a Rotary Tidal Current with Moon Age," Journal of Geophysical Research, V. 68, No. 2, 1963, p. 596.

Chapman, S., "The Magnetic Field of the Moon," Nature, V. 160, 1947, p. 395.

Cruls, L., "The Law According to Which the Sun's Distance to the Moon from any Two Stars Varies as a Function of the Time," Academie des Sciences. Comptes Rendus, Tome CXI, No. 14, 1890.

Danes, Z. F., "Isostatic Compensation of Lunar Craters," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in American Geophysical Union. Transactions, V. 43, No. 4, Dec. 1962.

Dolginov, S. S., et al., "Studies of the Magnetic Field of the Earth and Moon," Aircraft Engineering, V. 32, No. 382, p. 366.

Dolginov, S. S., et al., "Measuring the Magnetic Field of the Earth and Moon by Means of Sputnik III and Space Rockets I and II," Space Research, Proceedings of the First International Space Science Symposium, Nice, January 11-16, 1960, p. 863-868, Edited by H. K. Bijl, North-Holland Publishing Company, Amsterdam, 1960.

Dolginov, S. S., Yeroshenko, Y. G., Zhuzgov, L. N., and Pushkov, N. V., "Investigation of the Magnetic Field of the Moon," Geomagnetism and Aeronomy, USSR, V. 1, No. 1, 1961, 9 pp.

Duda, J. P., "Introduction to the Motions of the Moon," Sperry Engineering Review, V. 13, Dec. 1960, p. 19-25.

Egorova, A. V., "The Influence of the Gravitational Attraction of the Sun and the Moon on the Motion of an Artificial Earth Satellite," *Iskustvennye Sputniki Zemli USSR*, V. 8, 1961, p. 46-56, Translated by OTS.

Elsasser, W. M., (See Urey, H. C., 1959)

Fanslau, G., (See Bartels, J., 1933)

Fielder, G., "The Earth-Moon System," *Discovery*, V. 21, No. 1, 1960, p. 12-17.

Fielder, G., "Stress in the Moon," *Planetary and Space Science*, V. 5, No. 4, 1961, p. 286-287.

Fielder, G., "The Contraction and Expansion of the Moon," *Planetary and Space Science*, V. 8, 1961, p. 1-8.

Fielder, G., "Lunar Tectonics," *Geological Society of London. Quarterly Journal*, V. 119, No. 473, Pt. 1, 1963, p. 65-94.

Firsoff, V. H., "The Compressive and Tensional Stage in Lunar Maria," *British Astronomical Association. Journal*, V. 73, No. 3, 1962, p. 114-118.

Fotheringham, J. K., "Determination of Accelerations and Fluctuations in Motions of Sun and Moon," *Observatory*, V. 55, 1932, p. 305-316.

Fotheringham, J. K., "The Babylonian Eclipses," *Royal Astronomical Society. Monthly Notices*, V. 95, 1935, p. 719-723.

Franz, J. H., "Die Konstanten der Physischen Liberation," *Koenigsberg*, 1889.

Franz, J. H., "Die Figur des Mondes," *Astion. Beobachtungen Universitas-Sternwarte 20 Konigsberg*, V. 38, No. 5, 1899, 33 pp.

Freidland, M. V., "Determination of the Moon's Free Liberation in Longitude," *Akademiia Nauk SSSR. Institut Teoreticheskoi Astronomii. Bulletin*, V. 7, No. 4, 1959, p. 293-317. (Russian with English Summary)

Gallagher, W. J., "Mass of the Moon from Satellite Observations," *Science*, V. 128, 1958, p. 1207.

Harrison, J. C., "An Analysis of the Lunar Tides," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in *American Geophysical Union. Transactions*, V. 43, No. 4, DEC. 1962.

Hartley, K., "Direct Measurement of the Gravitational Effect of the Moon," *Physics*, V. 4, 1933, p. 162-163

- Hedrick, H. B., (See Brown, E. W., 1920)
- Hevelius, J., "De Motu Lunae Libratorio," 1654.
- Hill, G. W., "The Secular Variation of the Motion of the Moon's Perigee," *Astronomical Journal*, V. 10, No. 10-11, 1890.
- Hopmann, J., (See Schrutka-Rechtenstamm, G., 1958)
- Iakovkin, A. A., "The Motion of the Moon," *Priroda*, No. 3, 1960, p. 47-50. (Russian)
- Igor, A., "The Lunar Gravitational Potential," *Advances in the Astronomical Sciences*, V. 5, Plenum Press, 1960, p. 320.
- James, R., and Kopal, Z., "The Equilibrium Figures of the Earth and the Major Planets," *Icarus*, V. 1, No. 5-6, 1963, p. 442-454.
- Jeffreys, H., "Resonance Theory of the Origin of the Moon, Part II," *Royal Astronomical Society. Monthly Notices*, V. 91, 1930, p. 169-173.
- Jeffreys, H., "Figures of the Earth and Moon," *Royal Astronomical Society. Monthly Notices*, V. 97, 1936, p. 3-15.
- Jeffreys, H., "Figures of the Earth and Moon," *Royal Astronomical Society. Monthly Notices, Geophysical Supplement*, V. 4, 1937, p. 1-12.
- Jeffreys, H., "Figures of the Earth and Moon," *Royal Astronomical Society. Monthly Notices*, V. 101, No. 1, 1941, p. 34-36.
- Jeffreys, H., "The Figures of Earth and Moon," *Royal Astronomical Society. Monthly Notices, Geophysical Supplement*, V. 5, 1948, p. 219-247.
- Jeffreys, H., "The Moon's Libration in Longitude," *Royal Astronomical Society. Monthly Notices*, V. 117, No. 5, 1957, p. 475-477.
- Jeffreys, H., "On the Figure of the Moon," *Royal Astronomical Society. Monthly Notices*, V. 122, 1961, p. 421-432.
- Jefimenko, O., "On the Possibility of Electromagnetic Damping of the Moon's Motion," *Naturwissenschaften*, V. 45, No. 23, 1958, p. 566. (German)
- Khabibullin, S. T., "Physical Liberation of the Moon," *Joint Publications Research Service 5733*, Washington, Oct. 12, 1960, 424 pp., OTS-60-41506.
- Kopal, Z., "Does the Moon Possess a Magnetic Field," *Space Journal*, V. 2, No. 1, 1959, p. 3-8.

- Kopal, Z., "Origin of the Lunar Craters and Maria," *Nature*, V. 183, 1959, p. 737-738.
- Kopal, Z., "Internal Structure of the Moon," Lunar Missions Meeting, American Rocket Society, Cleveland, Ohio, Jul. 1962.
- Kopal, Z., "Thermal History of the Moon and of the Terrestrial Planets. Numerical Results," California Institute of Technology, Jet Propulsion Laboratory, IR 32-225, 1962, 108 pp.
- Kopal, Z., (See James, R., 1963)
- Kovach, R. L., (See Sutton, G. H., 1962)
- Kovach, R. L., (See Carr, R. E., 1962)
- Lamar, D. L., "Shape and Internal Structure of the Moon," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in American Geophysical Union. Transactions, V. 43, No. 4, Dec. 1962.
- Lettau, H., "On the Heat Budget of the Moon and the Surface Temperature Variation During a Lunar Eclipse," *Geofisica Pura e Applicata*, V. 19, 1951, p. 1-18.
- Levin, B. Yu., "History of the Rotation of the Moon and Rheological Properties of it's Constituent Matter," *Vopr. Kosmogon. SSSR.*, V. 6, 1958, p. 56-62. (Russian)
- Levin, B. Yu., and Maeva, S. V., "Some Calculations of the Thermal History of the Moon," *Soviet Physics - Doklady*, V. 5, 1961, p. 643-646.
- Lewin, B. J., and Ljubimowa, E. A., "The Thermal History of the Moon," *Priroda*, V. 44, No. 10, 1955, p. 81-84. (Russian)
- Ljubimowa, E. A., (See Lewin, B. J., 1955)
- MacDonald, G. J., "Seismic Activity of the Moon," Lunar and Planetary Exploration Colloquium. Proceedings, V. 2, 1960, p. 45-47.
- MacDonald, G. F., "Stress History of the Moon," *Planetary and Space Science*, V. 2, No. 4, 1960, p. 249-255.
- MacDonald, G. F., "Interior of the Moon," *Science*, V. 133, 1961, p. 1045-1050.
- MacDonald, G. F., "The Moon and It's Interior," *Astronautics*, Jul. 1962.
- Maeva, S. V., (See Levin, B. Yu., 1961)

Marth, A., "Ephemerides for Physical Observation of the Moon, 1891, February 12 - May 15," Royal Astronomical Society. Monthly Notices, V. 51, No. 3, 1891.

Marth, A., "Ephemerides for Physical Observation of the Moon, 1891," Royal Astronomical Society. Monthly Notices, V. 51, No. 6, 1891.

Mayer, T., "Abhandlung Ueber Die Umwaelzung Des Mondes Um Seive Achse Und Die Scheinbare Bewegung Der Mondflecke," Nurenberg, 1748.

McGann, J. V., (See Schecter, H. B., 1963)

McIntosh, R. A., "The Origin of Lunar Features," Royal Astronomical Society of Canada. Journal, V. 37, 1943, p. 24-28.

Miner, R., "How High the Moon - A Table of Distance of the Moon," Army Engineering, V. 2, No. 4, 1959, p. 27-33.

Morris, E. C., and Stephens, H. G., "Photographic Investigation of the Earth-Moon Libration Regions L-4 and L-5 From Mount Chacaltaya, Bolivia," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in American Geophysical Union. Transactions, V. 43, No. 4, 1962.

Neidell, N. S., (See Sutton, G. H., 1962)

Neugebauer, M., "Question of the Existence of a Lunar Magnetic Field," Physical Review Letters, V. 4, No. 1, 1960, p. 6-8.

Newcomb, S., and Ross, F. E., "Investigation of Inequalities in the Motion of the Moon Produced by the Action of the Planets," Carnegie Institute, 1907.

Newton, I., "Principia," 1687.

Nolke, F., "Place of Origin of the Moon," Gerlands Beitrage Zur Geophysik, V. 41, No. 1, 1934, p. 86-91.

O'Keefe, J. A., "A New Determination of the Lunar Parallax," Astronomical Journal, V. 55, 1950, p. 177.

O'Keefe, J. A., (See Cameron, W. S., 1961)

Orlov, A. J., "Determination of Lunar Geomagnetic Variations by Means of Accounting Machines," Moskva, Bulletin of the Academy of Sciences, No. 2, 1937, p. 195-206.

Papaleski, N. D., "Measurement of Earth-Moon Distance by Means of Electromagnetic Waves," Elektrichestvo, No. 5, 1946, p. 9-15. (Russian)

Perchot, J., "On the Movement of the Lunar Perigee," Academie des Sciences. Comptus Rendus. Tome 112, No. 19, 1891.

Pushkov, N. V., (See Dolginov, S. S., 1961)

Rochester, M. G., (See Urey, H. C., 1959)

Ross, F. E., (See Newcomb, S., 1907)

Saito, M., (See Zakeuchi, H., 1961)

Schechter, H. B., and McGann, J. V., "Gravitational Force Field in the Vicinity of the Earth-Moon Libration Points," AIAA Journal, V. 1, No. 5, 1963, p. 843-487.

Schrutka-Rechtenstamm, G., and Hopmann, J., "The Figure of the Moon," Akademie der Wissenschaften. S.B., Osterreich. Mathematischphysikalisch Ki Abt. 11, No. 8-10, 1956, p. 283-290. (German)

Spencer Jones, H., "Mean Motions of the Lunar Perigee and Node and the Figure of the Moon," Royal Astronomical Society. Monthly Notices, V. 97, 1937, p. 406-409.

Spencer Jones, H., "The Solar Parallax and the Mass of the Moon from Observations of Eros at the Opposition of 1931," Royal Astronomical Society. Memoirs, V. 66, No. 2, 66 pp.

Spencer Jones, H., "The Solar Parallax and the Mass of the Moon from Observations of Eros at the Opposition of 1961," Royal Astronomical Society. Monthly Notices, V. 101, No. 8, 1941, p. 356-366.

Stephens, H. G., (See Morris, E. C., 1962)

Stockwell, J. N., "The Theory of the Moon's Motion," Astronomical Journal, V. 10, No. 14-15, 1891.

Stockwell, J. N., "The Mean and Secular Motion of the Moon's Perigee," Astronomical Journal, V. 10, No. 18-21, 1891.

Suksdorff, E., "Influence of the Moon and the Inner Planets on the Geomagnetic Activity," Geophysica, V. 5, No. 2, 1956, p. 95-106.

Sutton, G. H., Neidell, N. S., and Kovach, R. L., "Theoretical Tides on a Rigid Spherical Moon," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in American Geophysical Union. Transactions, V. 43, No. 4, Dec. 1962.

University of Alaska, "A Table of Daily Integers 1902-1952. Seasonal, Solar, Lunar, and Geomagnetic," Geophysical Institute Scientific Report No. 2, AF 19(604)-503, Dec. 1954.

Urey, H. C., Elsasser, W. M., and Rochester, M. G., "Note on the Internal Structure of the Moon," Astrophysical Journal, V. 129, No. 3, 1959, p. 842-848.

Vallarta, M. S., "Cosmic Rays and the Magnetic Field of the Moon," Nature, V. 161, 1948, p. 646-647.

Vestine, E. H., "Utilization of a Moon Rocket System for Measurement of the Lunar Magnetic Field," Rand Corporation Research Memorandum, RM-1933, 1957.

Vestine, E. H., "Some Aspects of the Survey of the Magnetic Field of the Moon and the Planets," Rand Corporation Research Memorandum, RM-3140-NASA, 1962, 18 pp.

Von Bulow, K., "Fundamental Tectonic Parallels Between Moon and Earth," Forschungen Fortschritte, V. 33, 1959, p. 1-4. (German)

Warner, B., "Stresses in the Surface of the Moon," British Astronomical Association. Journal, V. 71, 1961, p. 388-395.

Westfall, J. E., "Azimuthal Projections in Selenography," International Lunar Society. Journal, V. 1, No. 7, 1960, p. 188-190.

Wright, F. E., "Gravity on the Earth and on the Moon," Scientific Monthly, V. 24, 1927, p. 452.

Yeroshenko, Y. G., (See Dolginov, S. S., 1961)

Zakeuchi, H., and Saito, M., "Free Oscillations of the Moon," Journal of Geophysical Research, V. 66, 1961, p. 3895-3897.

Zhuzgov, I. N., (See Dolginov, S. S., 1961)

ENVIRONMENT
(ATMOSPHERE, SURFACE TEMPERATURE, RADIATION, METEORITE FLUX, ETC.)

Ahnert, P., "Der Verschwundene Riesenkrater Alhazen in Abendbeleuchtung," *Sterne, Dtsch.*, V. 35, No. 7-8, 1959, p. 142-143. (German)

Akafune, K., "Lunar Radiation of 3000 MC," *Japan Academy. Proceedings*, V. 36, No. 161, 1955.

Anonymous, "Papers on the Study of Lunar Meteoric Phenomena," *Documentation des Observateurs. Bulletin*, No. 11, Nov. 1953, (French)

Anonymous, "Possible Sources of a Lunar Atmosphere," *Sky and Telescope*, V. 17, 1958, p. 342.

Anonymous, "Radiation Measurements in the Vicinity of the Earth and Moon," *IGY Bulletin*, No. 30, Dec. 1959.

Bagge, E., and Binder, O., "A Lunar Effect in the Intensity Variation of Cosmic Rays and its Origin," *Die Naturwissenschaften*, V. 46, No. 13, Jul. 15, 1959, p. 424. (German)

Baldwin, J. E., "Thermal Radiation from the Moon and the Heat Flow through the Lunar Surface," *Royal Astronomical Society. Monthly Notices*, V. 122, 1961, p. 513-522.

Barasch, M. L., (See Weil, H., 1962)

Barasch, M. L., (See Weil, H., 1963)

Baum, R., "Japanese Predictions of Lunar Meteoric Showers for 1955," *Vega Nr.* 26, 1955, p. 1-2.

Binder, O., (See Bagge, E., 1959)

Bobrovnikoff, N. T., "Natural Environment of the Moon," WADC-TN-847-3, AF 33(616)-5914, 1959, 127 pp., AD-242177.

Bobrovnikoff, N. T., (See Jones, C. D., 1961)

Boeddicker, O., "On the Changes of the Radiation of the Heat from the Moon," *Dublin*, 1887.

Boeddicker, O., "Lunar Radiant Heat," *Dublin*, 1891.

Borough, H. C., (See Shorthill, R. W., 1960)

Borst, L. B., (See Edwards, W. F., 1958)

Bosćovich, R., "De Lunae Atmosphaera," Rome, 1753.

Brandt, J. C., "Density of the Lunar Atmosphere," Science, V. 131, 1960, p. 1606-1671.

Broner, M. A., and Lander, G. A., "How Bad is the Moon Environment," Space Aeronautics, Apr. 1962, p. 92.

Broten, N. W., (See Medd, W. J., 1961)

Brown, H., (See Watson, K., 1961)

Canfield, E. H., (See Lingenfetter, R. E., 1961)

Conel, J. E., (See Speed, R. C., 1962)

Conley, J. M., (See Shorthill, R. W., 1960)

Costain, C. H., Ellsmore, B., and Whitfield, G. R., "Radio Observations of a Lunar Occultation of the Crab Nebula," Royal Astronomical Society. Monthly Notices, V. 116, 1955, p. 380-385.

Doebelin, E. O., (See Jones, C. D., 1961)

Dollfus, A., (See Lyot, R., 1949)

Dollfus, A., "A New Investigation of an Atmosphere in the Neighborhood of the Moon," Academie des Sciences. Comptes Rendus, V. 234, 1952, p. 2046-2049. (French)

Edwards, W. F., and Borst, L. B., "Possible Sources of a Luna Atmosphere," Science, V. 127, 1958, p. 325, 328.

Ellsmore, B., and Whitfield, G. R., "Lunar Occultation of a Radio Star and the Derivation of an Upper Limit for the Density of the Lunar Atmosphere," Nature, V. 176, 1955, p. 457-458.

Ellsmore, B., (See Costain, C. H., 1955)

Ellsmore, B., "Radio Observations of the Lunar Atmosphere," Philosophical Magazine, V. 2, 1957, p. 1040-1046.

Ellsmore, B., "The Atmosphere of the Moon," New Scientist, V. 2, No. 42, 1957, p. 22-23.

Euler, L., "Sur L'Atmosphere de la Lune," Berlin, 1748.

Firsoff, V. A., "Dissipation of Planetary Atmospheres," Science, V. 130, No. 3385, 1959, p. 1337-1338.

- Firsoff, V. A., "Density of the Lunar Atmosphere," *Science*, V. 131, 1960, p. 1669-1671.
- Fremlin, J. H., "Sub-Surface Temperature of the Moon," *Nature*, V. 183, 1959, p. 1317-1318.
- Geoffrion, A. R., Korner, M., and Sinton, W. M., "Isothermal Contours of the Moon," *Lowell Observatory Bulletin*, No. 106, 1960, 15 pp.
- Gibson, J. E., "Thermal Radiation of the Moon at 0186- μ m Wavelength," *NRL Report 4984*, 1957.
- Gibson, J. E., "Lunar Thermal Radiation at 35 KMC," *IKE Proceedings*, V. 46, No. 1, 1958, p. 280.
- Giraud, A., "A Study of Lunar Thermal Emission," *University of Michigan Report 03544-1-T*, Subcontract No. 33-S-101, Autometric Corporation, 1960, 35 pp.
- Gold, T., "Magnetosphere of the Moon," Abstract of Paper Presented at the 111th Meeting of the American Astronomical Society, Aug. 26-29, 1962, Yale University, New Haven, Connecticut, in *Astronomical Journal*, V. 67, No. 9, 1962, p. 571-590.
- Green, J. (Chariman), "The Atmosphere of the Moon," *Lunar and Planetary Exploration Colloquium. Proceedings*, V. 3, No. 1, 1962, p. 51-68.
- Grensted, F. F., "Airless and Waterless Conditions of the Moon," *Liverpool Astronomical Society. Journal*, V. 9, No. 3, 1891.
- Han, L. S., (See Jones, C. D., 1961)
- Hedervari, P., "On the Moon's Atmosphere," *Idojaras*, V. 63, No. 1, 1959, p. 55-57. (Hungarian)
- Herring, J. R., and Licht, A. L., "Effect of Solar Wind on the Lunar Atmosphere," *Science*, V. 30, 1959, p. 266.
- Hess, W. N., (See Lingenfetter, R. E., 1961)
- Hinton, F. L., and Taeusch, D. R., "A Model of the Lunar Atmosphere," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in *American Geophysical Union. Transactions*, V. 43, No. 4, Dec. 1962.
- Jaeger, J. C., "Conduction of Heat in a Solid with Periodic Boundary Conditions, with an Application to the Surface Temperature of the Moon," *Cambridge Philosophical Society. Proceedings*, V. 49, Pt. 2, 1953, p. 355-359.

- Jaeger, J. C., "The Surface Temperature of the Moon," Australian Journal of Physics, V. 6, 1953, p. 10-21.
- Jaeger, J. C., "Sub-Surface Temperatures on the Moon," Nature, V. 183, 1959, p. 1316-1317.
- Jastrow, R., "Lunar and Terrestrial Atmospheres," Advances in the Astronautical Sciences, V. 5, Plenum Press, 1960, p. 338.
- Jones, C. D., Doebelin, E. O., Han, L. S., Shaw, J. N., Bobrovnikoff, N. T., Jossem, E. L., and Lunardini, V. A., "Preliminary Investigation of Interplanetary Lunar and Near Planet Environments and Methods of Simulation," Ohio State University, ASD-TR-61-267, AF 33(616)-5914, 1961, 216 pp., AD-268719.
- Jossem, E. L., (See Jones, C. D., 1961)
- Kipski, Yu. N., "On the Existence of the Lunar Atmosphere," Akademiya Nauk SSSR. Doklady, V. 65, No. 4, 1949, p. 465-468. (Russian)
- Klobuchar, J. A., (See Taylor, G. N., 1963)
- Kopal, F., "Gravitational Heating of the Moon," Icarus, V. 1, No. 5, 6, 1963, p. 412-421.
- Korner, M., (See Geoffrion, A. R., 1960)
- Kristenson, H., "The Lunar Contours at the Total Solar Eclipse of 1954, June 30." Arkiv for Astronomi, V. 1, 1954, p. 411-415.
- Lander, G. A., (See Broner, M. A., 1962)
- Levin, B. Y., and Maeva, S. V., "Some Calculations of the Thermal History of the Moon," American Institute of Physics, V. 5, No. 4, 1961, p. 643-646.
- Ley, W., "Why the Moon is Airless," Philadelphia Evening Bulletin, Sept. 15, 1959, p. 39.
- Licht, A. L., "See Herring, J. R., 1959)
- Lingenfetter, R. E., Canfield, E. H., and Hess, W. N., "The Lunar Neutron Flux," Journal of Geophysical Research, V. 66, 1961, p. 2665-2671.
- Lunardini, V. A., (See Jones, C. D., 1961)
- Lyon, R. P., (See Speed, R. C., 1962)

Lyot, R., and Dollfus, A., "Search for an Atmosphere in the Vicinity of the Moon," Academie des Sciences. Comptes Rendus, V. 229, 1949, p. 1277-1280. (French)

Maeva, S. V., (See Levin, B. Y., 1961)

Mayer, T., "Beweis Dass Der Mond Keinen Luftkreis Hat," Nurenberg, 1748.

McCartney, E. J., "Navigational Environment on the Moon," Sperry Engineering Review, V. 15, No. 1, Summer, 1962.

Medd, W. J., and Broten, N. W., "Lunar Temperature Measurements at 3200 MC/S," Planetary and Space Science, V. 5, No. 4, 1961, p. 307-313.

Mezger, P. S., and Strassl, H., "The Thermal Radiation of the Moon at 1420 MC/S," Planetary and Space Science, V. 1, 1959, p. 213-226.

Minnett, H. C., (See Piddington, J. H., 1949)

Muncey, R. W., "Calculations of Lunar Temperatures," Nature, V. 181, 1959, p. 1458-1459.

Murray, B. C., (See Watson, K., 1961)

Murray, B. C., and Wildey, R. L., "Surface Temperature Variations During the Lunar Nighttime," Abstract of Paper Presented at the 113th Meeting of the American Astronomical Society, 17-20 April 1963, at the Kitt Peak National Observatory, University of Arizona, Tucson, Arizona, in Astronomical Journal, V. 68, No. 5, 1963, p. 271-301.

Nicholson, S. B., (See Pettit, E., 1930)

Opik, E. J., "The Density of the Lunar Atmosphere," Irish Astronomical Journal, V. 3, No. 5, 1955, p. 137-143.

Opik, E. J., and Singer, S. F., "Escape of Gases from the Moon," Journal of Geophysical Research, V. 65, 1960, p. 3065-3070.

Opik, E. J., and Singer, S. F., "Density of the Lunar Atmosphere," Science, V. 133, 1961, p. 1419-1420.

Opik, E. J., "The Lunar Atmosphere," Planetary and Space Science, V. 9, 1962, p. 211-244.

Pael, S. E., "On the Evidence of Solar Heat Around the Moon's Equator," Liverpool Astronomical Society. Journal, V. 9, No. 2, 1890.

Pettit, E., and Nicholson, S. B., "Lunar Radiation Temperature," Astrophysical Journal, V. 71, 1930, p. 102-135.

- Pettit, E., "Lunar Radiation as Related to Phase," *Astrophysical Journal*, V. 8, 1935, p. 17.
- Pettit, E., "Radiation Measurements on the Eclipsed Moon," *Astrophysical Journal*, V. 91, 1940, p. 408-420.
- Piddington, J. H., and Minnett, H. C., "Microwave Thermal Radiation From the Moon," *Australian Journal of Scientific Research*, V. 2, 1949, p. 63-77.
- Raimond, J. J., "The Temperature of the Moon," *Hemel En Dampkring*, V. 48, No. 5, 1950, p. 81-84. (Dutch)
- Ritchie, C. A., "The Moon's Supply of Atmosphere and Water," *American Society of Naval Engineers. Journal*, Aug. 1958, p. 435-437.
- Saari, J. M., (See Shorthill, R. W., 1961)
- Shaw, J. N., (See Jones, C. D., 1961)
- Shorthill, R. W., Borcugh, H. C., and Conley, J. M., "Enhanced Lunar Thermal Radiation During a Lunar Eclipse," *Astronomical Society of the Pacific. Publications*, V. 72, No. 429, 1960, p. 481-485.
- Shorthill, R. W., and Saari, J. M., "Lunar Infrared Temperature Measurements during September 4, 5, and 6, 1960," *Boeing Company Report D7-2550-1*, Jan. 30, 1961.
- Singer, S. F., (See Opik, E. J., 1960)
- Singer, S. F., (See Opik, E. J., 1961)
- Singer, S. F., "Atmosphere near the Moon," *Astronautica Acta*, V. 7, Fasc. 2-3, 1961, p. 135-140.
- Sinton, W. M., "Taking the Temperature of the Moon and Planets," *Astronomical Society of the Pacific. Leaflet* 345, 1958.
- Sinton, W. M., (See Geoffrion, A. R., 1960)
- Speed, R. C., Conel, J. E., and Lyon, R. P., "Composition and Temperature Mapping of the Lunar Surface by Spectral Analysis of the Thermal Emission by an Orbiting Vehicle," *Abstract of Paper Presented at the Second Western National Meeting Program*, Dec. 27-29, 1962, Stanford University, Stanford, California, in *American Geophysical Union. Transactions*, V. 43, No. 4, Dec. 1962.
- Strassl, H., (See Mezger, P. S., 1959)

Struve, O., "An Upper Limit for the Mass of the Lunar Atmosphere," *Astrophysical Journal*, V. 100, 1944, p. 104-105.

Taeusch, D. R., (See Hinton, F. L., 1962)

Taylor, G. N., Whitney, H. E., and Klobuchar, J. A., "Bistatic Lunar Radar Measurements of Ionospheric Electron Content," *Atmospheric and Terrestrial Physics. Journal*, V. 25, No. 10, 1963, p. 601-603.

Turner, G., "The Extent of the Lunar Atmosphere," *Spaceflight*, V. 2, No. 2, 1959, p. 57-58.

Vaughn, F., "Possible Atmospheric Phenomena in the Lunar Crater Conon," *Royal Astronomical Society of Canada. Journal*, V. 36, 1942, p. 49-54.

Vestine, E. H., "Evolution and Nature of the Lunar Atmosphere," *Lunar and Planetary Exploration Colloquium. Proceedings*, V. 1, No. 1, 1958, p. 19-23.

Watson, K., Murray, B. C., and Brown, H., "The Behavior of Volatiles on the Lunar Surface." *Journal of Geophysical Research*, V. 66, 1961, p. 3033-3045.

Weil, H., and Barasch, M. L., "Model of the Lunar Ionosphere," Abstract of Paper Presented at the 111th Meeting of the American Astronomical Society, Aug. 26-29, 1962, Yale University, New Haven, Connecticut, in *Astronomical Journal*, V. 67, No. 9, 1962, p. 571-590.

Weil, H., and Barasch, M. L., "A Theoretical Lunar Ionosphere," *Icarus*, V. 1, No. 4, 1963, p. 346-356.

Whitfield, G. R., (See Ellsmore, B., 1955)

Whitfield, G. R., (See Costain, C. H., 1955)

Whitney, H. E., (See Taylor, G. N., 1963)

Wilkey, R. L., (See Murray, B. C., 1963)

EXPERIMENTAL RESEARCH

Althens, C. L., "Grundzege zur Gaenzlichen Ungestaltung der Bisherigen Geologie," Koburg, 1839.

Anonymous, "Engineer Corps Study Indicates Lunar Test Center Need," Army Research and Development, V. 2, No. 6, 1961, p. 10-11.

Azmon, E., "Preparation of Lunar Rock Samples," Astronautical Sciences, Sept. 1961.

Azmon, E., "Lunar Melting and Melting of Gabbro at High Pressures," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in American Geophysical Union. Transactions, V. 43, No. 4, Dec. 1962.

Azmon, E., Berlot, R. R., and Roberts, C. E., "Research on the Moon," Space Science, Feb. 1962.

Azmon, E., "Temperature of Melting of Complex Silicates," Paper Presented at the Conference on Geological Problems in Lunar Research, May 16-19, 1964, The New York Academy of Sciences, New York, New York, 1964.

Berlot, R. R., (See Azmon, E., 1962)

Dobar, W., (See Liu, N. C., 1964)

Dobar, W., "Behavior of Lava on the Lunar Surface," Paper Presented at the Conference on Geological Problems in Lunar Research, The New York Academy of Sciences, New York, New York, May 16-19, 1964.

Gault, D. E., Quaide, W. L., and Schmidt, R. A., "Gravitative Effects on Lunar Impact Structures," Paper Presented at the Conference on Geological Problems in Lunar Research, The New York Academy of Sciences, New York, New York, May 16-19, 1964.

Gault, D. E., Heitowit, E. D., and Moore, H. J., "Some Observations of Hypervelocity Impacts with Porous Media," The Lunar Surface Layer, Academic Press, 1964, p. 151-178.

Glaser, p., Wechsler, A., and Simon, I., "Radiation Damage and Thermal Properties of Simulated Lunar Materials," Paper Presented at the Conference on Geological Problems in Lunar Research, The New York Academy of Sciences, New York, New York, May 16-19, 1964.

Glaser, P., (See Wechsler, A., 1964)

Green, J., "Sonic Velocity in Possible Lunar Surface Materials," Lunar and Planetary Exploration Colloquium. Proceedings, V. 1, No. 4, 1959, p. 26-32.

Green, J., and Osgood, J. H., "Sonic Velocity and Shear Strength of Possible Lunar Surface Materials," The Lunar Surface Layer, Academic Press, 1964, p. 135-150.

Greer, R. L., "Impact Studies on Lunar Dust Models at Various Vacuums," Unpublished Masters Thesis, Air Force Institute of Technology, Wright-Patterson AFB, Ohio, Aug. 1961.

Greer, R. L., "Impact Studies on Lunar Dust Models at Various Vacuums," ASD-TR-61-595, 1962, 69 pp., AD-273604.

Halajian, J. D., "Laboratory Investigation of Moon-Soils," IAS National Summer Meeting, IAS Paper No. 62-123, Los Angeles, California, 1962.

Halajian, J. D., "Laboratory Investigation of Moon Soils," Institute of Aerospace Science, Paper 62-123, 1962, 61 pp.

Halajian, J. D., "Gravity Effects on Soil Behavior," The Lunar Surface Layer, Academic Press, 1964, p. 67-92.

Hapke, B. W., "Experiments Relating to the Lunar Surface," 2nd Preliminary Report, Center for Radiophysics and Space Research, Cornell University, 1962.

Hapke, B. W., "Photometric and Other Laboratory Studies Relating to the Lunar Surface," The Lunar Surface Layer, Academic Press, 1964, p. 323-344.

Heitowit, E. D., (See Gault, D. E., 1964)

Jaffe, L. D., and Rittenhouse, J. B., "How Materials Behave in Space," Material Design Engineer, V. 56, No. 3, 1962, p. 97-104.

Jaffe, L. D., and Rittenhouse, J. B., Behavior of Materials in Space Environment," California Institute of Technology, Jet Propulsion Laboratory, Report No. 32-50, 1962.

Jaffe, L. D., "Mechanical and Thermal Measurements on Simulated Lunar Surface Materials," The Lunar Surface Layer, Academic Press, 1964, p. 355-380.

Johnson, P. C., (See Stein, B. A., 1964)

Kopecky, L., "The Cast Basalt Industry," Paper Presented at the Conference on Geological Problems in Lunar Research, The New York Academy of Sciences, New York, New York, May 16-19, 1964.

Lawden, D. F., "The Simulation of Gravity," British Interplanetary Society. Journal, V. 16, No. 3, 1957, p. 134-140.

Liu, N. C., and DeVar, W., "The Nature of the Lunar Surface: The Thermal Conductivity of Dust and Pumice," The Lunar Surface Layer, Academic Press, 1964, p. 381-388.

Markov, A. V., "Results of Experimental Work on Polarization of Details of the Lunar Surface," Izvest. Glavn. Astr. Obs. Pulkove, S.S.S.R., V. 20, No. 5, 1958, p. 138-55. (Russian)

Martin, R. T., "Water Vapor Adsorption Behavior of Kaclinite after High-Vacuum Storage," The Lunar Surface Layer, Academic Press, 1964, p. 111-134.

Moore, H. J., (See Gault, D. E., 1964)

Nelson, J. D., (See Vey, E., 1963)

Osgood, J. H., (See Green, J., 1964)

Quaide, W. L., (See Gault, D. E., 1964)

Rittenhouse, J. B., (See Jaffe, L. D., 1962)

Rittenhouse, J. B., (See Roddy, D. J., 1962)

Rittenhouse, J. B., (See Jaffe, L. D., 32-150)

Roberts, C. E., (See Azmon, E., 1962)

Roddy, D. J., Rittenhouse, J. B., and Scott, R. F., "Dynamic Penetration Studies in Crushed Rock Under Atmospheric and Vacuum Conditions," California Institute of Technology, Report No. 32-242, Jet Propulsion Laboratory, 1962.

Rosenberg, S. D., "Manufacture of Oxygen from Lunar Materials," Paper Presented at the Conference on Geological Problems in Lunar Research, The New York Academy of Sciences, New York, New York, May 16-19, 1964.

Rowe, R. D., and Selig, E. T., "Penetration Studies of Simulated Lunar Dust," Armour Research Foundation, 1962, 19 pp.

Russell, J., "A Description of the Selenographia, an Apparatus for Exhibiting the Phenomena of the Moon," London, 1797.

Salisbury, J., "Photometric Properties of Simulated Lunar Dust in Vacuum," Paper Presented at the Conference on Geological Problems in Lunar Research, The New York Academy of Sciences, New York, New York, May 16-19, 1964.

Schmidt, R. A., (See Gault, D. E., 1964)

Scott, R. F., (See Roddy, D. J., 1962)

Selig, E. T., (See Rowe, R. D., 1962)

Simon, I., (See Glaser, P., 1964)

Simon, I., (See Van Tassel, R. A., 1964)

Sjaastad, G. D., "The Effect of Vacuum on the Shearing Resistance of Ideal Granular System," Unpublished PhD Thesis, Princeton University, 1963, 114 pp.

Stein, B. A., and Johnson, P. C., "Investigation of Soil Adhesion under High Vacuum," The Lunar Surface Layer, Academic Press, 1964, p. 93-110.

Van Tassel, R. A., and Simon, I., "Thermal Emission Characteristics of Mineral Dusts," The Lunar Surface Layer, Academic Press, 1964, p. 445-468.

Vey, E., "Studies on Lunar Soil Mechanics - 1st Quarterly Progress Report," Armour Research Foundation, ARF Project No. K272, Contract No. NAS-65(02), 28 September 1962, 11 pp.

Vey, E., "Studies on Lunar Soil Mechanics - 2nd Quarterly Progress Report," Armour Research Foundation, ARF Project No. K272, Contract No. NAS-65(02), 31 December 1962, 14 pp.

Vey, E., "Studies on Lunar Soil Mechanics - 3rd Quarterly Progress Report," Armour Research Foundation, ARF Project No. K272, Contract No. NAS-65(02), 20 March 1963, 8 pp.

Vey, E., and Nelson, J. D., "Studies of Lunar Soil Mechanics," Armour Research Foundation, ARF Project No. M-272, NASA-65(02), 1963, 85 pp.

Wechsler, A., and Glaser, P., "Thermal Properties of Postulated Lunar Surface Materials," The Lunar Surface Layer, Academic Press, 1964, p. 389-410.

Wechsler, A., (See Glaser, P., 1964)

Wehner, G. K., "Sputtering Effects on the Lunar Surface," The Lunar Surface Layer, Academic Press, 1964, p. 313-322.

Wesselink, A. F., "Heat Conductivity and Nature of the Lunar Surface Material," Astronomical Institute of the Netherlands. Bulletin, V. 10, No. 351, 1948.

EXPLORATION AND BASING CONCEPTS

Adams, C. R., "Lunar Landing Vehicle Helicopter Landing Simulation Study," Aerospace Medicine, V. 35, No. 1, 1964.

Andrews, E. P., "The Delivery System and Performance Requirements for a Lunar Roving Vehicle," Automotive Engineering Congress, Society of Automotive Engineers, Detroit, Michigan, Jan. 1963.

Anonymous, "Engineering for the Moon," Mechanical Engineering, V. 80, No. 12, 1958, p. 70.

Anonymous, "Building on the Moon," Architectural Forum, V. 110, 1959, p. 148-149.

Anonymous, "How One May Establish a Scientific Station on the Moon - A Window into the Future," Tekhnika Molodezhi (Moscow), 1959, p. 36.

Anonymous, "Moonmobiles to Investigate Lunar Surface Before Man," Ground Support Equipment, V. 2, No. 6, 1960, p. 37-38.

Anonymous, "Ready-to-Wear for Hostile Environments," Machine Design, V. 32, No. 26, 1960, p. 6.

Anonymous, "Moon Study Contract," Aeroplane and Astronautics, V. 100, No. 2591, 1961, p. 703.

Anonymous, "Man in the Moon," Missiles and Space, V. 7, No. 8, 1961, p. 6.

Anonymous, "Project Moonhole," Lunar Section of British Astronomical Association. Journal, V. 73, No. 2, 1963, p. 58-61

Armstrong, R. H., et al., "A Lunar Power Plant," Argonne National Laboratory, Report No. ANL-6261, Contract W-31-109-ENG-38, Dec. 1960, 137 pp.

Awdry, G. V., "Development of a Lunar Base," British Interplanetary Society. Journal, V. 13, No. 16, 1954.

Azmon, E., "Lunar Soil Sampling and Testing," Paper No. 175, American Society for Testing and Materials, Los Angeles, California, Oct. 5, 1962.

Baker, R. L., "Utilization of the Laplarian Method from a Lunar Observatory," Icarus, V. 1, No. 4, 1963, p. 343-345.

- Barnes, J., "Scientific and Engineering Exploration of the Moon," *Vistas in Astronautics*, V. 2, 1959, p. 255-256.
- Bekker, M. G., "Mechanics of Locomotion and Lunar Surface Vehicle Concepts," Automotive Engineering Congress, Society of Automotive Engineers, Detroit, Michigan, Jan. 1963.
- Billingham, J., "Heat Exchange Between Man and His Environment on the Surface of the Moon," *British Interplanetary Society. Journal*, V. 17, No. 3, 1960, p. 288-289.
- Binder, O. O., "Lunar Colony," *Space World*, V. 1, No. 7, 1961, p. 32-35, 50, 52.
- Bloch, A., and Konstantin, A., "Hydraulics on the Moon," *Hydraulics and Pneumatics*, V. 13, No. 12, 1960, p. 73-74.
- Bloom, J. L., and Weddell, J. B., "13-Watt Isotope-Powered Thermo-electric Generators for Space and Lunar Impact Missions," *ARS Space Power Systems Conference*, Santa Monica, California, September 27-30, 1960, American Rocket Society, p. 1332-1360.
- Bolt, B. A., "Theoretical Phase Velocities for a Lunar Seismic Experiment," *Journal of Geophysical Research*, V. 66, No. 10, 1961, p. 3513.
- Branley, F. M., "Exploration of the Moon," Doubleday, 1962, 146 pp.
- Brereton, R. G., "Lunar Exploration," *Geotimes*, V. 4, 1960, p. 8-9.
- Brown, K., "Packaging for Lunar Explorations," *Package Engineering*, V. 5, 1960, p. 70-71, 74-75, 78, 80-81 and 82.
- Burgess, E., "Why Go to the Moon," *Interavia*, V. 14, No. 11, 1959, p. 1387-1389.
- Buwalda, P., (See Press, F., 1960)
- Cacciola, A. W., (See Hofstein, L. L., 1960)
- Cacciola, A. J., (See hofstein, L. L., 1961)
- Campbell, J. A., (See Dundzila, A. V., 1961)
- Campan, C. F., (See Salisbury, J. W., 1961)
- Castruccio, P. A., "Can the Photoelectric Process be used for Power Stations on the Moon," *Aircraft and Missile Manufacturing*, V. 2, No. 4, 1959, p. 42-43.

Clarke, A. C., "Exploration of the Moon," Fredrick Muller, London, 1954.

Cole, D. M., "Extraterrestrial Colonies," Navigation, V. 7, 1960, p. 83-98.

Conel, J. E., (See Speed, R. C., 1962)

Costello, G. A., and Dewhirst, D. L., "Effect of Gravity on the Mobility of a Lunar Vehicle," AIAA Journal, V. 1, No. 9, 1963, p. 2157-2159.

Cronquist, D. H., "Problem of Traction," Pacific Rocket Society. Bulletin, V. 5, No. 8, 1952, p. 87-88.

Cummings, C. I. (Chairman), "Lunar Exploration Vehicles," Lunar and Planetary Exploration Colloquium. Proceedings, V. 2, No. 3, 1961, p. 57-72.

Cummings, C. I., "Ranger in the Lunar Program," Astronautics, V. 6, No. 9, 1961, p. 22, 52.

Dewhirst, D. L., (See Costello, G. A., 1963)

Dileonardo, G., "Lunar Construction," ARS Journal, V. 32, No. 6, 1962, p. 973.

Douglas, J. H., "Farming on Moon," British Interplanetary Society. Journal, V. 15, No. 68, 1956, p. 7-28.

Dundzilia, A. V., and Campbell, J. A., "Lunar Drill Study Program," Armour Research Foundation Report No. ARF 8208-6, Final Report 15 August - 15 December 1960, January 1961, Subcontract to JPL Contract NASW-6, AD-258618.

Eastman, F., "House Group Urges Bigger Lunar Effort," Space Technology, V. 3, No. 3, 1960, p. 48.

Eimer, M., "Measurement of Properties of the Moon From a Soft-Landed Vehicle," Institute of Aerospace Science, Paper 61-111-1805, 1961, 4 pp.

Eimer, M. (Chairman), "Lunar Experiments - Physical and Biological," Lunar and Planetary Exploration Colloquium. Proceedings, V. 2, No. 3, 1961, p. 43-55.

Eimer, A. M., (See Hibbs, A. R., 1961)

Eimer, M., "Measuring Lunar Properties from a Soft-Lander," Astronautics, Jul. 1962.

Eimer, M., "Measuring Lunar Properties From a Soft-Lander," Jet Propulsion Laboratory Technical Report No. 32-282, 1962, 4 pp.

Fears, F., "Interplanetary Bases," Space Flight Journal, V. 3, Sept. 1951.

Fleisig, R., "Lunar Exploration and Spacecraft Systems," Plenum Press, 1962, 201 pp.

Friend, J. L., "Problems of Lunar and Planetary Exploration," Lunar and Planetary Exploration Colloquium. Proceedings, V. 3, No. 1, 1962, p. 69-79.

Frimtzis, R., "Lunar Vehicle Guidance Study," General Dynamics Astronautics, ASD-TDR-62-207, AF 33(616)-7966, 1962, 207 pp. AD-273301.

Gatland, K. W., "The Robot Explorers," Spaceflight, V. 2, 1960, p. 212-218.

Gatland, K. W., "Exploration of the Moon, 2. The Robot Explorers," Spaceflight, V. 11, No. 7, 1960, p. 212-219.

Gaume, J. G., "Life Support Systems for the Lunar Base," ARS, Semi-annual Meeting, Los Angeles, California, May 9-12, 1960, Preprint 1227-60, 11 pp.

Gaume, J. G., "Learning to Live on the Moon," Space World, V. 1, No. 11, 1961, p. 26-29, 61-62.

Gaume, J. G., "Lunar Life Support Systems," Missile Design and Development, V. 7, 1961, p. 46-48, 52-54.

Gerathewohl, S. J., "Equipment for Manned Space Capsules and Lunar Bases," Army Medical Services, Research and Development Command, Special Report, Feb. 1959, 28 pp., AD-227226.

Green, J., "The Significance of Terrestrial Analogs of Lunar Features of Lunar Basing," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in American Geophysical Union. Transactions, V. 43, No. 4, Dec. 1962.

Green, J., "The Geo-sciences Applied to Manned Lunar Exploration," North American Aviation, Report SID 61-217, 1961, 115 pp.

Greenfield, S. M., "Program of Lunar and Planetary Experiments," Lunar and Planetary Exploration Colloquium. Proceedings, V. 1, No. 3, 1958, p. 31-33.

Hibbs, A. R. (Editor), "Exploration of the Moon, The Planets, and Interplanetary Space," California Institute of Technology, Jet Propulsion Laboratory Report No. 30-1, 1958.

Hibbs, A. R., "The National Program for Lunar and Planetary Exploration," Journal of Geophysical Research, V. 66, No. 7, 1961, p. 2003-2012.

Hibbs, A. R., "Exploration of the Moon and Planets," Problems Related to Interplanetary Matter, National Academy of Science, National Research Council, Publication 845, 1961, p. 73-76.

Hibbs, A. R., Eimer, A. M., and Neugebauer, M., "Early Ranger Experiments," Astronautics, V. 6, No. 9, 1961, p. 26.

Hiltner, W. F., and Oman, H., "Electrical Power for Lunar Stations," Astronomical Society of the Pacific. Publications, V. 71, 1959, p. 386.

Hiltner, W. R., and Oman, H., "Several Methods are Available to Provide Electric Power for the Men on the Moon," Boeing Magazine, V. 29, 1959, p. 6-7.

Hofstein, L. L., and Cacciola, A. W., "Lunar Space Vehicle," American Rocket Society, Report No. 1424-60, 1960, 18 pp., AD-255019.

Hofstein, L. L., and Cacciola, A. W., "Lunar Surface Vehicles," Astronautics, V. 6, No. 2, 1961, p. 36-38, 52, 54.

Holbrook, R. D., "Lunar Base Planning Considerations," Rand Corporation Report No. P-1436, 24 Feb. 1958, 28 pp.

Holbrook, R. D., "Outline of a Study of Extraterrestrial Base Design," Rand Corporation Research Memorandum RM-2161, 1958, 68 pp., AD-156043.

Holbrook, R. D., Lang, H. A., and Huntzicker, J. H., "Lunar Base Study Jury Report - Evaluation of an Experiment in Creative Design Conducted with College Students," Rand Corporation, RM-2174, 1958, 223 pp., AD-235422.

Hughes Tool Company, "Preliminary Feasability Study of Drilling a Hole on the Moon," Final Technical Report, 23 September 1960, JPL Contract N-33553, Under NASA Contract NASW-6, AD-258661.

Huntzicker, J. H., (See Holbrook, R. D., 1958)

Jastrow, R., "The Exploration of the Moon," Scientific American, V. 202, No. 5, 1960, p. 61-69.

Jastrow, R., "American Plans for Exploring the Moon with Instruments," New Scientist, V. 10, No. 6, 1961, p. 702-705.

Johnson, M. H., "Experiments from a Lunar Vehicle," Vistas in Astronautics, V. 2, 1958.

Kaempfen, C. E., "Applications of Lunar Basing Practices to Terrestrial Shelters," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in American Geophysical Union. Transactions, V. 43, No. 4, Dec. 1962.

Konstantin, I., (See Bloch, A., 1960)

Kopal, Z., "Prospecting the Moon Without Rockets," New Scientist, V. 4, 1958, p. 1052-1053.

Kovach, R. L., (See Speed, R. C., 1962)

Kuiper, G. P., "The Exploration of the Moon," Vistas in Astronautics, V. 2, 1959, p. 273-314.

Lang, H. A., (See Holbrook, R. D., 1958)

Levinton, Z., "Engineering for the Moon," Consulting Engineer, V. 15, No. 4, 1960, p. 86-92.

Ley, W., "Inside the Lunar Base," Colliers, 25 October 1952, p. 46-47.

Ley, W., "Getting Around When we Get There," Space World, V. 1, No. 4, 1960, p. 26-27, 57-61.

Loomis, A. A., (See Speed, R. C., 1962)

Love, C. C., "Cryogenic Propellant Storage Parameters on Moon," in Advances in the Astronautical Sciences, Plenum Press, V. 7, 1961, 454 pp.

Lowery, R. O., and Ray, J. T., "Human Factors of the Lunar Logistics Mission," SAE, International Congress and Exposition of Automotive Engineers, 1961, Detroit, Michigan, January 9-13, 1961, Preprint 302C, 36 pp.

Markow, E. G., "Metalastic Wheels for Lunar Locomotion," Institute of Aerospace Science, Paper 62-135, 1962, 22 pp.

Moore, P. A., "Exploration of the Moon, 1. The Lunar Objective," Spaceflight, V. 11, No. 7, 1960, p. 209-211.

- Neat, W. N., "Man on the Moon," *Spaceflight*, V. 2, 1960, p. 219-224.
- Neugebauer, M., (See Press, F., 1960)
- Neugebauer, M., (See Hibbs, A. R., 1961)
- Neumark, O. W., "Lunar Accommodation," *British Interplanetary Society. Journal*, V. 12, 1953, p. 146-147.
- O'Day, M., "Power for a Lunar Colony," *Lunar and Planetary Exploration Colloquium. Proceedings*, V. 1, No. 3, 1958, p. 11-14.
- Oman, H., (See Hiltner, W. F., 1959)
- Oman, H., (See Hiltner, W. F., 1959)
- Oncley, L. A., "Lunar Exploration Experimental Program Plan," Boeing Document D2-90421, 1963, 27 pp.
- Ordway, F. I., "GSE on the Moon," *GSE-Ground Support Equipment*, V. 2, No. 2, 1960, p. 86-94.
- Oyama, V. I., Vango, S. P., and Wilson, E. M., "Application of Gas Chromatography to the Analyses of Organic Water and Absorbed Gases in the Lunar Crust," *ARS Journal*, V. 32, No. 3, 1962, p. 354-360.
- Page, F., "A Home Away from Home," *Scientific Engineer*, V. 11, No. 2, 1960, p. 14-15, 28.
- Palmore, J. I., "Lunar Impact Probe," *ARS Journal*, V. 31, No. 8, 1961, p. 1066.
- Pelterie, R. E., "Exploring the Moon by Rocket Ship," *Modern Mechanics*, Aug. 1931.
- Press, F., Buwalda, P., and Neugebauer, M., "A Lunar Seismic Experiment," *Journal of Geophysical Research*, V. 65, 1960, p. 3097-3105.
- Ray, J. T., (See Lowery, R. O., 1961)
- Reichert, R. W., (See Williams, F. L., 1961)
- Rinehart, J. S., "Basic Criteria for Moon Building," *British Interplanetary Society. Journal*, V. 17, No. 5, 1959, p. 126.
- Robey, D. H., "Radiation Shelters for Lunar Explorations," *Astronautical Sciences. Journal*, V. 8, 1961, p. 62-63.

- Rolan, G., "Lunar Support Equipment - The Time is Now," Aerospace Engineering, V. 20, No. 12, 1961, p. 8.
- Romaine, O., "Space and Lunar Support," Space Aeronautics, Pt. 2, V. 36, No. 5, 1961, p. 14-18.
- Ruppe, H. O., (See Williams, F. L., 1961)
- Ryan, C. (Editor), "Conquest of the Moon," Viking Press, 1953.
- Salisbury, J. W., and Campen, C. F., "Location of a Lunar Base," GRD Research Notes No. 70, AFCRL-870, 1961, 44 pp.
- Salisbury, J. W., "Lunar Natural Resources," Paper Presented at the Science and Engineering Symposium, San Francisco, California, 1961, 12 pp.
- Schrader, C. D., and Stiner, R. J., "Remote Analysis of Surfaces by Neutron-Gamma-Ray Inelastic Scattering Technique," Journal of Geophysical Research, V. 66, 1961, p. 1951-1956.
- Shoemaker, E. M., "Exploration of the Moon's Surface," American Scientist, V. 50, No. 1, 1962, p. 99-130.
- Sholto-Douglas, J. H., "Farming on the Moon," British Interplanetary Society. Journal, V. 15, No. 17, 1958.
- Sims, W. R., "Architecture of the Lunar Base," Lunar and Planetary Exploration Colloquium. Proceedings, V. 3, No. 3, 1963, p. 73-81.
- Sowerby, P. L., "Planetary Engineering," British Interplanetary Society. Journal, V. 13, 1954, p. 62.
- Sowerby, P. L., "Structural Problems of Lunar Base," British Interplanetary Society. Journal, V. 13, No. 1, 1954, p. 36-40.
- Sowerby, P. L., "Lunar Accomodation," British Interplanetary Society. Journal, V. 14, 1955, p. 116-118.
- Speed, R. C., Conel, J. E., Kovach, R. L., and Loomas, A. A., "Geological Exploration of the Moon and Planets," NASA-University Conference on the Science and Technology of Space Exploration, Chicago, Nov. 1-3, 1962, NASA SP-11, V. 1, p. 207-231.
- Stambler, I., "Ranger, First U. S. Moon-Impact Vehicle," Space Aeronautics, V. 35, No. 2, 1961, p. 45-50.
- Stehling, K. R., "Moon Looks Promising as Manned Space Station," Aviation Age, V. 29, No. 5, 1958, p. 122-123, 180.

Stehling, K. R., "Moon Refueling for Interplanetary Vehicles," Aviation Age, V. 30, No. 2, 1958, p. 22-23.

Stehling, K. R., "Operating on the Moon," Space Aeronautics, V. 35, No. 2, 1961, p. 42-44.

Stephenson, L., "Making Measurement by Hard Landing Vehicles," Lunar and Planetary Exploration Colloquium. Proceedings, V. 1, No. 2, 1958, p. 19-20.

Stewart, P. E., "Surface Navigation on the Moon," British Interplanetary Society. Journal, V. 18, 1961, p. 149-155.

Stewart, P. E., "Surface Exploration of the Moon," Spaceflight, V. 3, No. 2, 1961, p. 34-38.

Stiner, R. J., (See Schrader, C. D., 1961)

Sugerman, B. F., "Architecture on the Moon," Georgia Tech Engineer, V. 22, No. 1, 1960, p. 14-15, 30, 39.

Texaco, Incorporated, "Lunar Drill Feasibility Study," V. 1, 13 January 1961, Contract JPL N-33552, Under NASA Contract NASW-6.

Thompson, G. E., "The Lunar Base," British Interplanetary Society. Journal, V. 10, Mar. 1951, p. 49-70.

Thorman, H. C., "Review of Techniques for Measuring Rock and Soil Strength Properties at the Surface of the Moon," Society of Automotive Engineers, Automotive Engineering Congress, Detroit, Michigan, Jan. 1963.

Trast, C., "Lunar Landing Sites Selection," ARS Journal, V. 31, 1961, p. 1153.

Vango, S. P., (See Oyama, V. I., 1962)

Von Braun, W., "Man on the Moon, The Journey," Colliers, Oct. 18, 1952, p. 52.

Von Braun, W., (See Whipple, F. L., 1952)

Weddell, J. B., (See Bloom, J. L., 1960)

Whipple, F. L., and Von Braun, W., "The Exploration," Colliers, 1952, p. 38-40, 42, 44-46, 48.

Williams, F. L., Ruppe, H. O., and Reichert, R. W., "Transportation System to Establish Manned Lunar Outpost," SAE-Paper No. 302J, Meeting January 9-13, 1961, 12 pp.

Wilson, E. M., (See Oyama, V. I., 1962)

Wilson, R. J., "A Family of Radioisotope-Fueled Auxiliary Power Systems for Lunar Exploration," Astronautical Sciences Review, V. 3, No. 1, 1961, p. 19-26.

Yeh, L. P., "Use of Moon or Satellite Relays for Global Communications," AIEE Pacific General Meeting, San Diego, California, Aug. 8-12, 1960, Paper 60-1061, Electrical Engineering, V. 79, Dec. 1960, p. 1043-1048.

Zwicky, F., "Some Possible Operations on the Moon," ARS Journal, V. 30, 1960, p. 1177-1180.

Zwicky, F., "Possible Operations on the Moon," Spaceflight, V. 3, No. 5, 1961, p. 177-179.

LUNAR-EARTH PHENOMENA

Appleton, E. V., and Weekes, K., "On Lunar Tides in the Upper Atmosphere," Royal Society. Proceedings, Series A, V. 171, 1939, p. 171-187.

Bergh, H. W., (See Van Wijk, A. M., 1963)

Bhargava, B. N., "Lunar Tidal Effects in Equatorial Es," Atmospheric and Terrestrial Physics. Journal, V. 25, No. 6, 1963, p. 367-370.

Bossolasco, M., (See Egedal, J., 1941)

Brady, A. H., and Crombie, D. D., "Studying the Lunar Tidal Variations in the D Region of the Ionosphere by Means of Very-Low-Frequency Phase Observations," Journal of Geophysical Research, V. 68, No. 19, 1963, p. 5433-5442.

Chambers, C., "On the Solar and Lunar Variations of Magnetic Declination at Bombay, Part 1," Royal Society. Proceedings, V. 17, 1869, p. 161-162.

Chambers, C., "On the Lunar Variations of Magnetic Declination at Bombay," Bombay Magnetical and Meteorological Observations, 1865-1870, Appendix 3, Bombay, 1872, p. 235-242.

Chambers, C., "Luni-Solar Variations of the Vertical Magnetic Force at Bombay for the Single Quarter, November 1875 to January 1876," British Association Report for 1887.

Chambers, C., "On the Luni-Solar Variations of Magnetic Declination and Horizontal Force at Bombay, and of Declination at Trevandrum," Royal Society of London. Philosophical Transactions, Series A, V. 176, 1887.

Chambers, C., "On the Lunar Variation of Magnetic Declination at Bombay," Royal Society. Proceedings, V. 20, 1872, p. 135-136.

Chapman, S., "The Moon's Influence on the Earth's Magnetism," Terrestrial Magnetism and Atmospheric Electricity, V. 19, No. 1, 1914, p. 39-44.

Chapman, S., "On the Lunar Diurnal Variation of the Earth's Magnetism at Pavlovsk and Pola (1897-1903)," Royal Society of London. Philosophical Transactions, Series A, V. 215, 1915, p. 161-176.

Chapman, S., "The Lunar Diurnal Magnetic Variation, and Its Change with Lunar Distance," Royal Society of London. Philosophical Transactions, Series A, V. 215, 1915, p. 161-176.

Chapman, S., "The Influence of Solar Activity of the Lunar-Diurnal Magnetic Variation," *Terrestrial Magnetism and Atmospheric Electricity*, V. 22, No. 2, 1917, p. 87-91.

Chapman, S., "On the Influence of Lunar Declination on the Lunar-Diurnal Variation of Magnetic Declination at Zikawei," *Terrestrial Magnetism and Atmospheric Electricity*, V. 22, No. 3, 1917, p. 121-124.

Chapman, S., "The Influence of Changes in Distance upon the Lunar-Diurnal Magnetic Variation," *Terrestrial Magnetism and Atmospheric Electricity*, V. 23, No. 1, 1918, p. 25-28.

Chapman, S., "The Solar and Lunar Diurnal Variations of Terrestrial Magnetism," *Royal Society of London. Philosophical Transactions*, Series A, V. 218, 1919, p. 1-118.

Chapman, S., "The Lunar Diurnal Magnetic Variation at Greenwich and Other Observatories," *Royal Society of London. Philosophical Transactions*, Series A, V. 225, No. 627, 1925, p. 49-91.

Chapman, S., "The Lunar Atmospheric Tides over Canada, 1897-1932," *Royal Meteorological Society of London. Quarterly Journal*, V. 61, No. 261, 1935, p. 359-366

Chapman, S., "The Lunar Tide in the Earth's Atmosphere," *Royal Society. Proceedings*, V. 151, No. 872, 1935, p. 105-117.

Chapman, S., Hardman, M., and Miller, J. P., "The Lunar Atmospheric Tide at Melbourne, 1869-1892, 1900-1914," *Royal Meteorological Society of London. Quarterly Journal*, V. 52, No. 267, 1936, p. 540-551.

Chapman, S., "The Lunar Atmospheric Tide in the Azores, 1894-1932," *Royal Meteorology Society of London. Quarterly Journal*, V. 62, No. 263, 1936, p. 41-45.

Chapman, S., "The Lunar Atmospheric Tide at Glasgow," *Royal Society of Edinburgh. Proceedings*, V. 56, Pt. 1, 1936, p. 1-5.

Chapman, S., "The Lunar Atmospheric Tide at Accra, Gold Coast, Africa," *Royal Meteorology Society of London. Quarterly Journal*, V. 64, No. 276, 1938, p. 523-524.

Chapman, S., and Miller, J. P., "The Statistical Determination of Lunar Daily Variations in Geomagnetic and Meteorological Elements," *Royal Astronomical Society. Monthly Notices, Geophysics Supplement*, V. 4, 1940, p. 649-669.

Chapman, S., "Notes on the Lunar Geomagnetic Tide - Its Mathematical and Graphical Representations, and Their Significance," *Terrestrial Magnetism and Atmospheric Electricity*, V. 47, No. 4, 1942, p. 249-294.

Crombie, D. D., (See Brady, A. H., 1963)

Dorman, L. I., and Shatashvili, L. K., "Lunar Diurnal Variation of the Neutron Component in Cosmic Radiation and the Question of it's Origin," Geomagnetism and Aeronomy, USSR, V. 1, No. 5, 1961, 8 pp.

Egedal, J., "The Lunar-Diurnal Magnetic Variation and it's Relation to the Solar-Diurnal Variation," Terrestrial Magnetism and Atmospheric Electricity, V. 31, No. 1, 1926, p. 193-199.

Egedal, J., "The Lunar-Diurnal Magnetic Variation and it's Relation to the Solar-Diurnal Variation," Terrestrial Magnetism and Atmospheric Electricity, V. 32, No. 3, 1927, p. 139-141.

Egedal, J., "On the Lunar-Diurnal Variation in the Earth-Currents," Terrestrial Magnetism and Atmospheric Electricity, V. 42, No. 2, 1937, p. 179-182.

Egedal, J., and Bossolasco, M., "The Lunar Diurnal Variation of the Horizontal and Vertical Magnetic Forces at the Polar-Year Station Mogadiscio," Terrestrial Magnetism and Atmospheric Electricity, V. 46, No. 1, 1941, p. 59-60.

Fatkullin, M. N., "Lunar-Diurnal Magnetic Field Variations According to Observations at the Kajan Observatory," Geomagnetism and Aeronomy, USSR, No. 4, 1962, 3 pp.

Figee, S., "The Influence of the Moon on the Magnetic Needle, at Batavia, from Observations made from April 1883 to March 1899," Batavia, 1905.

Fischer, I., "Parallax of the Moon in Terms of a World Geodetic System," Astronomical Journal, V. 67, No. 6, 1962, p. 373-378.

Gerstenkorn, H., "Changes in the Earth-Moon System Through Tidal Friction in the Past in the Case of a Time-Dependent Gravitational Constant," Zeitschrift Fuer Astrophysick, V. 42, No. 3, 1957, p. 137-155. (German)

Hardman, M., (See Chapman, S., 1936)

Johnson, J. J., (See Stetson, H. T., 1934)

Miller, J. P., (See Chapman, S., 1936)

Miller, J. P., (See Chapman, S., 1940)

Omori, F., "Note on the Lunar-Daily Distribution of Earthquakes," Earthquake Investigation Committee, Publications in Foreign Languages, No. 18, Tokyo, 1904.

Raja Rao, K. S., and Sivaraman, K. R., "Lunar Geomagnetic Tides at Kodaikanal," Journal of Geophysical Research, V. 63, 1958, p. 727-730.

Rangaswamy, R., "Lunar Control of Noon Critical Frequencies of the F2 Region," Atmospheric and Terrestrial Physics. Journal, V. 25, No. 9, 1963, p. 545-549.

Rastogi, R. G., "Enhancement of the Lunar Tide in the Noon Critical Frequency of the F2 Layer Over the Magnetic Equator," Journal of Research, National Bureau of Standards, V. 66D, 1962, p. 601-605.

Rastogi, R. G., "Longitudinal Inequalities in the Lunar Tide and in Sudden Commencement in H Near the Magnetic Equator," Atmospheric and Terrestrial Physics. Journal, V. 25, No. 7, 1963, p. 393-397.

Rastogi, R. G., "Lunar Tides in the Equatorial Electrojet and in the Ionosphere over the Magnetic Equator," Nature, V. 200, No. 4911, 1963, p. 1083.

Rastogi, R. G., "Large Lunar Tidal Effects in Fo F2 in Presunrise Hours," Atmospheric and Terrestrial Physics. Journal, V. 25, No. 9, 1963, p. 515-518.

Robb, R. A., and Tannahill, T. R., "The Lunar Atmospheric Pressure Inequalities at Glasgow," Royal Society of Edinburgh. Proceedings, V. 56, Pt. 1, 1936, p. 91-96.

Robb, R. A., and Tannahill, T. R., "Lunar Atmospheric Pressure Variations at Glasgow," Royal Society of Edinburgh. Proceedings, V. 59, 1939, p. 81-90.

Rooney, W. J., "Lunar Diurnal Variation in Earth-Currents at Huancayo and Tucson," Terrestrial Magnetism and Atmospheric Electricity, V. 43, No. 2, 1938, p. 107-118.

Sanford, F., "Observations on Solar and Lunar Diurnal Variations of Earth Potential Due to Changes in Distribution of the Earth's Surface-Charge, Including Two New Methods of Recording Such Variations, and on the Accompanying Variations in the Atmospheric Potential-Gradient for the Year 1927," Terrestrial Electronics Observations. Bulletin, V. 5, 1928, 26 pp.

Schneider, O., "The Variability of Lunar Magnetic Variations," Terrestrial Magnetism and Atmospheric Electricity, V. 26, No. 3, 1941, p. 283-300.

Shatashvili, L. K., (See Dorman, L. I., 1961)

Sivaraman, K. R., (See Raja Rao, K. S., 1958)

Stetson, H. T., "On the Correlation of Radio Reception with the Moon's Position in the Observer's Sky," *Terrestrial Magnetism and Atmospheric Electricity*, V. 36, No. 1, 1931, p. 1-5.

Stetson, H. T., and Johnson, J. J., "On the Possibilities of a Tidal Effect in the Kennelly-Heaviside Layer as Evidenced by a Correlation of the Intensity of Radio Reception with Positions of the Moon," *Terrestrial Magnetism and Atmospheric Electricity*, V. 39, No. 2, 1934, p. 145-158.

Tannahill, T. R., (See Robb, R. A., 1936)

Tannahill, T. R., (See Robb, R. A., 1939)

Thomson, A., "Lunar Atmospheric Tides over Canada," *Royal Astronomical Society of Canada. Journal*, V. 29, No. 10, 1935, p. 375-380.

Van Wijk, A. M., and Bergh, H. W., "Preliminary Investigation into the Lunar Semidiurnal Variation in the Magnetic Elements at Cape Town and Hermanus," *Journal of Geophysical Research*, V. 68, No. 7, 1963, p. 2061-2062.

Weekes, K., (See Appleton, E. V., 1939)

Zaguliaeva, V. A., "Lunar Tidal Fluctuations in the Ionosphere," Translated by M. D. Friedman, from *Raprost. Radiovoln I Ionosf Trudy*, *Nymeran USSR*, V. 17, 1960, p. 282-286, AD-262420.

LUNAR TRAJECTORIES AND ASSOCIATED PROBLEMS

Anonymous, "United States and Russian Satellites, Lunar Probes, Space Probes, 1957-58-59," NASA, 1959, 23 pp.

Anonymous, "Lunik II's Landing on the Moon," Sky and Telescope, V. 20, 1960, p. 265.

Anonymous, "Huge Florida Center to House Moon Flight Facilities," Civil Engineering, Feb. 1963, p. 71.

Boonton, R. C., (See Mickelwait, A. B., 1959)

Breshears, R. R., (See Wrobel, R. J., 1960)

Breshears, R. R., "Spacecraft Propulsion Requirements for Lunar Exploration Missions," Institute for Aerospace Science, Paper 63-76, 1963, 38 pp.

Brumberg, V. A., Kirkichnikov, S. N., and Chebotarev, G. A., "Orbits of Artificial Moon Satellites," Soviet Astronomy - AJ, V. 5, No. 1, 1961, p. 95-105.

Buckheim, R. W., "Motion of a Small Body in Earth-Moon Space," RAND Corporation Research Memorandum RM-1726, 1956, AD-123557.

Buckheim, R. W., and Lieske, H. A., "Lunar Flight Dynamics," RAND Corporation Paper P-1433, Aug. 1958.

Buckheim, R. W., "Lunar Flight Trajectories," RAND Corporation, Paper P-1268, Jan. 1958, 49 pp.

Buckheim, R. W., "Lunar Flight Trajectories," Space Technology, Edited by H. Seifert, John Wiley and Sons, 1959.

Burley, R. R., (See Weber, R. J., 1961)

Burley, R. R. and Weber, R. J., "Lunar Takeoff," ARS Journal, V. 32, No. 8, 1962, p. 1296.

Campbell, J. W., "Rocket Flight to the Moon," Philosophical Magazine, V. 31, Ser. 7, 1941.

Capelli, A. P., "Dynamic Analysis for Lunar Alightment," AIAA Journal, V. 1, No. 8, 1963, p. 1119-1125.

Carton, D. S., "Minimum Propulsion for Soft Moon Landing on Instruments," Cranfield, College of Aeronautics, COA Note 94, Jul. 1959, 34 pp.

Chebotaiev, G. A., (See Brumberg, V. A., 1961)

Cheng, R. K., and Pfeffer, I., "A Terminal Guidance System for Soft Lunar Landing," Preprint 1912-61, American Rocket Society Guidance, Control and Navigation Conference, Stanford University, Aug. 7-9, 1961.

Clarke, V. C., "Design of Lunar and Interplanetary Ascent Trajectories," California Institute of Technology, Jet Propulsion Laboratory, TR-32-30, Mar. 1962, 16 pp.

Cole, D. M., and Muir, D. E., "Around the Moon in 80 Hours," Paper 27, Advances in Astronautical Sciences, V. 3, Western Regional Meeting of the American Astronautical Society. Proceedings, Aug. 1958, New York, Plenum Press, 30 pp.

Colombo, G., and Lautman, D. A., "Some Singular Orbits of an Earth-Moon Satellite with a High Area-Mass Ratio," Abstract of Paper Presented at the 111th Meeting of the American Astronomical Society, Aug. 26-29, 1962, Yale University, New Haven, Connecticut, in Astronomical Journal, V. 67, No. 9, 1962, p. 571-590.

Crambit, D. C., "A Consideration of Lunar Surface Ballistics and the Hazards Associated with Spacecraft Landing of Launch Operation," NASA TN-D-1526, 1963, 31 pp.

Cramer, J. L., "Project Far Side Launchings," Institute of Aeronautical Science, Preprint 824, Jan. 1958, 10 pp.

Crenshaw, J. W., (See Michael, W. H., 1961)

Darlington, S., "Guidance and Control of Unmanned Soft Landings on the Moon," Planetary and Space Science, V. 7, 1961, p. 70-75.

Egorov, V. A., "Problems on the Dynamics of Flight to the Moon," The Russian Literature of Satellites, Part 1, New York, 1958.

Gallagher, A. E., and Ingelse, A. O., "Drop Tests Prove Out Inflatable Lunar Decelerator," Space Aeronautics, V. 36, No. 4, 1961, p. 69 and 71.

Goldbaum, G. C., and Gunkel, R. J., "Comparison of Two- and Three-Dimensional Analysis of Earth-Moon Flight," Paper 31, Advances in Astronautical Sciences, V. 3, Western Regional Meeting of the American Astronautical Society. Proceedings, Aug. 1958, New York, Plenum Press, 15 pp.

Gold, T., "Anisotropy of Escape Velocity from the Moon, The Lunar Atmosphere and the Origin of Craters," Astronautical Sciences. Journal, V. 7, 1960, p. 23-24.

Gradecak, V., "Solar and Lunar Perturbations of a Satellite Orbit," Paper 28, Advances in Astronautical Sciences, Western Regional Meeting of the American Astronautical Society. Proceedings, V. 3, Aug. 1958, New York, Plenum Press, 8 pp.

Gunkel, R. J., (See Goldbaum, G. C., 1958)

Hakes, R. C., "Guidance and Navigation Systems for Lunar Mission," Reprint 2294-61, American Rocket Society Space Flight Report to the Nation, New York, Oct. 9-15, 1961.

Havill, C. D., "An Emergency Midcourse Navigation Procedure for a Space Vehicle Returning from the Moon," TN D-1765, 1963, 31 pp.

Hefferlin, R. A., "Is Rocket Contact with the Moon Possible," American Rocket Society. Journal, V. 16, No. 65, 1946, p. 31-32.

Hiller, H., "A Generalized Study of Two-Dimensional Trajectories of a Vehicle in Earth-Moon Space," Astronautica Acta, V. 8, 1962, p. 82-105.

Huang, S. S., "A Preliminary Study of the Orbits of Merit for Moon Probe," Abstract of Paper Presented at the 109th Meeting of the American Astronomical Society, Dec. 26-30, 1961, at Denver, Colorado, in Astronomical Journal, V. 67, No. 2, 1962, p. 109-124.

Huang, S. S., "Preliminary Study of Orbits of Interest for Moon Probes," Astronomical Journal, V. 67, No. 5, 1962, p. 304-310.

Ingelse, A. O., (See Gallagher, A. E., 1961)

Kaula, W. M., "Development of the Lunar and Solar Disturbing Functions for a Close Satellite," Astronomical Journal, V. 67, No. 5, 1962, p. 300-303.

King-Hele, D. G., "Space Trajectories," Advancement of Science, V. 20, No. 83, May 1963, p. 65-77.

Kirkichnikov, S. N., (See Brumberg, V. A., 1961)

Kopal, F., and Lyttleton, R. A., "On the Elliptic Case of the Restricted Problem of Three Bodies and the Remote History of the Earth-Moon System," Icarus, V. 1, No. 5-6, 1963, p. 455-458.

Kriegsman, B. A., and Reiss, M. H., "Terminal Guidance and Control Techniques for Soft Lunar Landing," ARS Journal, V. 32, No. 3, 1962, p. 401-413.

Lally, E., "Flexible Guidance Needed for Soft Planet Landings," Space Aeronautics, V. 35, Apr. 1961, p. 137-138, 140, 142, 144.

Lass, H., and Solloway, C. B., "Motion of a Satellite of the Moon," ARS Journal, V. 31, 1961, p. 220.

Lautman, D. A., (See Cclombo, G., 1962)

Lavender, R. E., "Comment on Dynamic Analysis for Lunar Alightment," AIAA Journal, V. 1, No. 9, 1963, p. 2196-2197.

Ley, W., "Rocket to the Moon," Mechanix Illustrated, Sept. 1945.

Lieske, H. A., (See Buckheim, R. W., 1958)

Lieske, H. A., "Lunar Trajectory Studies," Rand Corporation Paper P-1293, Feb. 1958, 36 pp.

Lieske, H. A., "Circumlunar Trajectory Studies," Rand Corporation Paper P-1441, Jun. 1958, 23 pp.

Lyttleton, R. A., (See Kopal, F., 1963)

McLean, J. D., "A Survey of Midcourse Guidance and Navigation Techniques for Lunar and Interplanetary Missions," NASA-University Conference on the Science and Technology of Space Exploration, Chicago, Nov. 1-3, 1962, NASA SP-11, V. 1, p. 347-352.

Michael, W. H., and Crenshaw, J. W., "Trajectory Considerations for Circumlunar Missions," 29th IAS Annual Meeting, New York, Jan. 23-25, 1961, Paper 61-35, 22 pp.

Michaels, J. E., Wachman, M., and Petty, A., "Lunik III, Trajectory Predictions," Astronautical Science Review, V. 2, No. 1, Jan.-Mar. 1960, p. 13-16.

Michaels, J. E., "Design Analysis of Earth-Lunar Trajectories, Launch and Transfer Characteristics," Institute of Aerospace Science, Paper 62-148, 1963, 24 pp.

Mickelwait, A. B., "Lunar Trajectories," ARS Journal, V. 29, No. 12, 1959, p. 905-914.

Mickelwait, A. B., and Boonton, R. C., "Analytical and Numerical Studies of Three Dimensional Trajectories to the Moon," Institute of Aeronautical Science, Paper 59-90, Jun. 1959, 27 pp.

Miller, Q. K., (See Queijo, M. J., 1962)

Moe, M. M., "Solar-Lunar Perturbations of the Orbit of an Earth Satellite," ARS Journal, V. 30, No. 5, 1960, p. 485-486.

Muir, D. E., (See Cole, D. M., 1958)

Palmore, J. I., "Lunar Impact Problem," ARS Journal, V. 31, No. 8, 1961, p. 1066-1073.

Pauson, W. M., (See Weber, R. J., 1959)

Pauson, W. M., (See Weber, R. J., 1961)

Pendray, G. E., "Rockets to the Moon," Elks Magazine, Oct. 1931.

Penzo, P. A., (See Skidmore, L. J., 1963)

Peterson, R. L., "Motion Picture Simulation of Unmanned Lunar Space, Craft Approaches to the Moon," Advances in the Astronautical Sciences, Plenum Press, V. 7, 1961, 454 pp.

Petty, A., (See Michaels, J. E., 1960)

Pfeffer, I., (See Cheng, R. K., 1961)

Pittman, C. W., (See Schroeder, W., 1961)

Quarles, G. G., "Lunar GSE Demands Compatability," Ground Support Equipment, V. 12, No. 6, 1960, p. 31-33.

Queijo, M. J., Riley, D. R., and Miller, Q. K., "A Fixed-Base-Simulator Study of the Ability of a Pilot to Establish Close Orbits Around the Moon and to Perform Soft Lunar Landings," Institute of Aerospace Science, Paper 62-13, Jan. 1962, 16 pp.

Rabe, E., and Schanzle, A., "Periodic Librations about the Triangular Solutions of the Restricted Earth-Moon Problem and their Orbital Stabilities," Astronomical Journal, V. 67, No. 10, 1962, p. 732-739.

Raytheon Company, "Preliminary Lunar Landing Terminal Guidance Study," Raytheon Company, Report BR-1249A, Jun. 1961.

Reiss, M. H., (See Kriegsman, B. A., 1962)

Reynolds, H. M., "Lunar Spacecraft Data Handling," National Telemetering Conference, Washington, D. C., Proceedings, Session VII - Airborne Equipment Developments, V. 2, 1962, 12 pp.

Richey, H. W., "The Next Fifteen Years of Rocketry and Rocket Mail to the Moon," Thiokol Astronaut, V. 1, No. 1, 1959, p. 12-15.

Riddell, W. C., "Initial Azimuths and Times for Ballistic Lunar Impact Trajectories," ARS Journal, V. 30, No. 5, 1960, p. 491-492.

Riley, D. R., (See Queijo, M. J., 1962)

- Rinehart, J. S., "Stresses Associated with Lunar Landings," British Interplanetary Society. Journal, V. 17, Nov.-Dec. 1960, p. 431-436.
- Roane, L. W., "The Escape Trajectory for a Vehicle in the Earth Moon Gravity Field," IAS Student Branch Paper Competition, 1958, Minta Martin Aeronautical Student Fund, 1958, 127 pp.
- Schanzle, A., (See Rabe, E., 1962)
- Schechter, N. B., "On the Perturbed Motion of a Lunar Satellite," Rand Corporation Research Memorandum RM-3088-PR, 1962.
- Schroeder, W., and Pittman, C. W., "A Guidance Technique for Interplanetary and Lunar Vehicles," Planetary and Space Science, V. 7, July 1961, p. 64-69.
- Sedov, L. I., "Orbits of Cosmic Rockets Toward the Moon," ARS Journal, V. 30, No. 1, 1960, p. 14-21.
- Sedov, L. I., "The Orbits of Cosmic Rockets Towards the Moon," Astronautica Acta, V. 6, No. 1, 1960, p. 16-31.
- Sedov, L. I., "Orbits of Space Rockets in the Direction of the Moon," Planetary and Space Science, V. 8, 1961, p. 107-116.
- Seeger, R. J., "Moon Bound," Washington Academy of Sciences. Journal, V. 49, No. 2, 1959, p. 42-44.
- Shute, B. E., "A Cislunar Orbit (IMP)," Abstract of Paper Presented at the 110th Meeting of the American Astronomical Society, April 1-4, 1962, at Cambridge, Massachusetts, in Astronomical Journal, V. 67, No. 5, 1962, p. 267-286.
- Singer, S. F., "Scientific Uses of Cislunar Vehicles," Vistas in Astronautics, V. 2, 2nd Annual Astronautics Symposium, New York, Pergamon Press, 1959, p. 32-38.
- Skidmore, L. J., and Penzo, P. A., "Monte Carlo Simulation of the Midcourse Guidance for Lunar Flights," AIAA Journal, V. 1., No. 5, 1963, p. 820-831.
- Small, L. W., "Possibility of Aerodynamic Descent on the Moon," Jet Propulsion, V. 28, No. 11, 1958, p. 765.
- Solloway, C. B., (See Lass, H., 1961)
- Stehling, K. R., "Landing on the Moon," Space Aeronautics, V. 33, No. 2, 1960, p. 42-45.

Stuhlinger, E., "Lunar Ferry with Electric Propulsion System," in First International Symposium on Rockets and Astronautics, Tokyo, 1959, 393 pp.

Stuhlinger, E., "Launch Vehicles for Lunar Flight," ARS Preprint 1115-60, May 1960, 9 pp.

Thuring, B., "Two Special Lunar Orbits in Space Travel Around the Earth and the Moon," *Astronautica Acta*, V. 5, No. 3-4, p. 241-250.

Tolson, R. H., "Maximum Latitudes of Lunar Landing Sites," *ARS Journal*, V. 32, No. 7, 1962, p. 1091-1092.

Tombaugh, C., "Where to Land on the Moon," *Lunar and Planetary Exploration Colloquium. Proceedings*, V. 1, No. 3, 1958, p. 15-19.

Tross, C., "Astronomical Constants and Their Importance in Lunar Trajectory Determination," *ARS Journal*, V. 30, No. 10, 1960, p. 938-941.

Tross, C., "Lunar Landing Sites, Selection," *ARS Journal*, V. 31, No. 8, 1961, p. 1153-1155.

Tross, C., "Lunar Vehicle Orbit Determination," *ARS Journal*, V. 32, 1962, p. 576-581.

Vestine, E. H., "Physics of Solar-Terrestrial Space-Lunar Flight," Rand Corporation, P-1344, Feb. 1958, 18 pp.

Wachman, M., (See Michaels, J. E., 1960)

Weber, R. J., and Pauson, W. M., "Some Trust and Trajectory Considerations for Lunar Landing," NASA TN D-1344, Nov. 1959, 37 pp.

Weber, R. J., Pauson, W. M., and Burley, R. R., "Lunar Trajectories," NASA TN D-866, Aug. 1961, 67 pp.

Weber, R. J., (See Burley, R. R., 1962)

White, J. S., and Wingrove, R. C., "A Survey of Guidance and Navigation Problems for the Manned Lunar Mission," *Navigation*, V. 9, 1962, p. 95-104.

Wilcox, A., "Moon Rocket," Thomas Nelson and Sons, London, 1946, 161 pp.

Wingrove, R. C., (See White, J. S., 1962)

Wrobel, R. J., and Breshears, R. R., "Lunar Landing Vehicle Propulsion Requirements," ARS Preprint 1121-60, May 1960, 16 pp.

Zukerman, A., "Asymptotic Expansions of the Solutions of the Equations of Motion in the Earth-Moon Space," IAS, Annual Meeting, 29th, New York, Jan. 23-25, 1961, Paper 61-8, 29 pp.

SURFACE MATERIALS AND NATURAL RESOURCES

Akabane, K., "Lunar Radiation at 3000 MC/s," Japan Academy. Proceedings, No. 3, 1955, p. 161-165.

Alter, D., "General Conditions at the Moon's Surface," Griffith Observer, V. 17, 1953, p. 86-92.

Amenitskii, N. A., Noskova, R. I., and Salomonovich, A. E., "Radio Image of the Moon at 8 MM," Soviet Astronomy - AJ, V. 4, 1960, p. 177-179.

Anderson, E. C., (See Van Dilla, M. A., LAMS-2455)

Anderson, E. C., (See Van Dilla, M. A., LAMS-2455)

Anderson, E. C., (See Van Dilla, M. A., LAMS-2526)

Anonymous, "Lunar Reflection of UHF Communications," Franklin Institute. Journal, V. 253, 1952, p. 70-71.

Anonymous, "Lunar Reflections of UHF Communications," Technical News Bulletin, V. 36, 1952, p. 35.

Anonymous, "Millimeter Waves to Map Moon," Electronics, V. 34, No. 1, 1961, p. 41.

Arnold, J. R., "Gamma Ray Spectroscopy of the Moon's Surface," Lunar and Planetary Exploration Colloquium. Proceedings, V. 1, No. 3, 1958, p. 28-31.

Badgley, P. C., Jaffe, F. C., Poole, H. G., and Siems, P. L, "Geological and Thermodynamic Aspects of Lunar Rocks," Colorado School of Mines Research Foundation, AFOSR-DRA-62-11, AF 29(600)-2878, 1962, 86 pp.

Baker, R. L., (See Gabbard, T., 1963)

Barabascheff, N., and Semejkin, B., "Color-Filter Photometry of the Lunar Eclipse April 2, 1931," Zeitschrift fuer Astrophysik, V. 6, No. 1-2, 1933, p. 114-120.

Barabashov, N. P., and Chekirda, A. T., "Comparison of the Colours and Brightness Coefficients of Parts of the Moon's Surface with some Terrestrial Rocks," Astronomicheskii Zhurnal, V. 33, No. 4, 1956, p. 549-555. (Russian)

- Barabashov, N. P., Ezerskii, V. I., and Fedorets, V. A., "Color Contrasts of the Lunar Surface," Soviet Astronomy - AJ, V. 3, No. 3, 1959, p. 484-489.
- Barabashov, N. P., and Chekirda, A. T., "A Study of the Rocks Most Closely Resembling the Surface Constituents of the Moon," Soviet Astronomy - AJ, V. 3, 1960, p. 827-831.
- Barrett, A. H., (See Staelin, D. H., 1963)
- Bennett, A. L., "Photovisual Investigation of the Brightness of 59 Areas of the Moon," Astrophysical Journal, V. 88, 1938, p. 1-26.
- Bergh, S., "The Color of the Moon," Astronomical Journal, V. 67, No. 2, 1962, p. 147-150.
- Beringer, R., (See Dicke, R. H., 1946)
- Bondar, L. N., Zelinskaya, M. R., Porfirev, V. A., and Strezhneva, K. M., "A Precision Measurement of Lunar Radio Emission at 3.2 CM Wavelength," Soviet Astronomy - AJ, V. 7, No. 3, 1962, p. 457.
- Bramley, E. N., "A Note on the Theory of Moon Echoes," Physical Society. Proceedings, V. 80, No. 517, 1962, p. 1128-1132.
- Brandt, J. C., and Hodge, R. W., "Lunar Dust and the Gegenschein," Nature, V. 192, No. 4806, 1961, p. 957.
- Brereton, R. G., "Lunar Dust," Aerojet-General Report-1876, Sept. 1960.
- Brereton, R. G., "Meteoritic Dust on the Surface of the Moon," ARS Journal, V. 31, No. 6, 1961, p. 850.
- Briggs, B. H., "Roughness of the Moon as a Radar Reflector," Nature, V. 187, 1960, p. 490.
- Brown, H., "Chemical Resources on the Moon," Lunar and Planetary Exploration Colloquium. Proceedings, V. 1, No. 3, 1958, p. 10- 11.
- Brown, H., (See Watson, K., 1961)
- Brown, W. E., "A Lunar and Planetary Echo Theory," Journal of Geophysical Research, V. 65, 1960, p. 3087-3095.
- Browne, I. C., Evans, J. V., Hargreaves, J. K., and Murray, W. A., "Radio Echoes from the Moon," Physical Society. Proceedings, Series B, V. 69, 1956, p. 901-920.

Brunschwig, M., et al., "Estimation of the Physical Constants of the Lunar Surface," University of Michigan Report No. 3544-1-F, Sub-contract No. 133-S-101, Autometric Corporation, 1960, 79 pp.

Buchwald, E., "Correlation Between Spectral Luminosity and Phase of the Moon," *Physikalische Zeitschrift*, V. 42, No. 21-22, 1941, p. 378-381.

Buettner, K., "Lunar Erosion," *Astronomical Society of the Pacific. Publications*, V. 64, No. 376, 1952, p. 11-14.

Buettner, K. K., "The Lunar Skin, Dusty or Porous," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in *American Geophysical Union. Transactions*, V. 43, No. 4, Dec. 1962.

Cameron, R. E., "The Role of Soil Science in Space Exploration," *Space Science Reviews*, V. 2, No. 2, 1963, p. 297-312.

Chekirda, A. T. (See Barabashov, N. P., 1956)

Chekirda, A. T., (See Barabashov, N. P., 1960)

Coates, R. J., "The Lunar Brightness Distributions at 4.3 MM Wavelength," *Astronomical Journal*, V. 64, 1959, p. 326.

Cowie, D. B., (See Lederberg, J., 1958)

Coyne, G. V., "Comparative Spectrophotometry of Selected Areas on the Lunar Surface," Abstract of the Paper Presented at the 111th Meeting of the American Astronomical Society, Aug. 26-29, 1962, Yale University, New Haven, Connecticut, in *Astronomical Journal*, V. 67, No. 9, 1962, p. 571-590.

Coyne, G. V., "Comparative Spectro-Photometry of Selected Areas on the Lunar Surface," *Astronomical Journal*, V. 68, No. 1, 1963, p. 49-56.

Daniels, F. B., "A Theory of Radar Reflections from the Moon," Army Signal Research and Development Laboratory, ASDRL Technical Report, No. 2163, Nov. 1960, 25 pp., AD-2470777.

Daniels, F. B., "A Theory of Radar Reflection from the Moon and Planets," *Journal of Geophysical Research*, V. 66, 1961, p. 1781-1788.

Dicke, R. H., and Beringer, R., "Microwave Radiation from the Sun and Moon," *Astrophysical Journal*, V. 103, 1946, p. 375-376.

Dollfus, A., "Polarization Curve of the Earth and Properties of the Lunar Soil," *Academie des Sciences. Comptes Rendus*, V. 235, No. 18, 1952, p. 1013-1016. (French)

- Dresler, A., "On a Seasonal Fluctuation of Spectral Luminosity," *Light*, V. 10, No. 4, 1940, p. 79-82. (German)
- Dufay, J., "Spectrum of Eclipsed Moon of September 26, 1931," *Academie des Sciences. Comptes Rendus*, V. 193, 1931, p. 711-714.
- Dyce, R. B., (See Leadabrand, R. L., 1960)
- Evans, J. V., (See Browne, I. C., 1956)
- Evans, J. V., "Research on Moon Echo Phenomena," University of Manchester, Technical Note No. 1, AFRC-TR-57-598, AF 61(615)-947, 1957, 30 pp., AD-133650.
- Evans, J. V., "Research on Moon Echo Phenomena," University of Manchester, AFRC-TR-59-184, AF 61(514)-947, 1959, 26 pp., AD-225709.
- Evans, J. V., and Pettengill, G. H., "The Scattering Behavior of the Moon at Wavelengths of 3.6, 68, and 784 Centimeters," *Journal of Geophysical Research*, V. 68, No. 2, 1963, p. 423-447.
- Ezerskii, V. I., (See Barabashov, N. P., 1959)
- Fedorets, V. A., (See Barabashov, N. P., 1959)
- Fedoseev, L. I., (See Zelinskaya, M. R., 1960)
- Fensler, W. E., Senior, T. A., and Siegel, K. M., "Exploring the Depth of the Surface Layer of the Moon from a Radar Space Observatory," *Aerospace Engineering*, V. 18, 1959, p. 38-41.
- Firsoff, V. A., "Is the Moon Covered with Dust," *British Astronomical Association. Journal*, V. 69, No. 4, 1959, p. 153-155.
- Firsoff, V. A., "Geology of the Moon," *International Lunar Society. Journal*, V. 1, No. 7, 1960, p. 176-182.
- Fredriken, R. F., (See Leadabrand, R. L., 1960)
- Gabbard, T., and Baker, R. L., "Lunar Radio Beacon Location by Doppler Measurements," *AIAA Journal*, V. 1, No. 5, 1963, p. 864-867.
- Gindre, R., "Photometric Study of the Total Lunar Eclipse of September 26, 1931," *Academie des Sciences. Comptes Rendus*, V. 193, 1931, p. 714-715.
- Giraud, A., (See Senior, T. A., 1962)
- Giraud, A., "Characteristics of the Moon's Surface Layer. An Analysis of its Radio Emission," *Astrophysical Journal*, V. 135, No. 1, 1962, p. 175-186.

- Gold, T., "Dust on the Moon," *Vistas in Astronautics*, Edited by M. Alperin and N. F. Gregory, V. 2, Pergamon Press, 1959, p. 261
- Goldberg, E. D., "X-Ray Techniques for Probing the Lunar Surface," *Lunar and Planetary Exploration Colloquium. Proceedings*, V. 1, No. 5, 1959, p. 19-21.
- Grammis, P. D., "Electrostatic Erosion Mechanisms on the Moon," *Journal of Geophysical Research*, V. 66, 1961, p. 4293-4299.
- Grebenkemper, C. J., "Lunar Radiation at a Wavelength of 2.2 CM," *Naval Research Laboratory, Report No. 5151*, Jun. 6, 1958, 11 pp., AD 162724.
- Green, J., "The Physical Characteristics of the Lunar Surface," *Lunar and Planetary Exploration Colloquium. Proceedings*, V. 1, No. 1, 1958, p. 11-15.
- Green, J., "Geochemical Implications of Lunar Degassing," *Lunar and Planetary Exploration Colloquium. Proceedings*, V. 1, No. 4, 1959, p. 1-18.
- Green, J., "Some Aspects of Lunar Geology," *Astronautical Science Review*, V. 2, No. 1, Jan.-Mar. 1960, p. 9-12, 16.
- Green, J., "Some Aspects of Extra-Terrestrial Geo-Chemistry," *Geochemical News*, No. 21, 1960, p. 3-8.
- Green, J., "The Geology of the Lunar Base," *North American Aviation, Report SID 61-358*, 1961, 127 pp.
- Gurzadyan, G. A., "A Lunar Radio Interferometer," *Soviet Physics, Doklady*, V. 3, No. 1, 1958, p. 15-18.
- Hagfors, T., "Some Properties of Radio Wave Reflected from the Moon and their Relation to the Lunar Surface," *Journal of Geophysical Research*, V. 66, No. 3, 1961, p. 777-785.
- Hapke, B., "Theoretical Photometric Function for the Lunar Surface," Abstract of Paper Presented at the 113th Meeting of the American Astronomical Society, 17-20 April 1963, at the Kitt Peak National Observatory, University of Arizona, Tucson, Arizona, in *Astronomical Journal*, V. 68, No. 5, 1963, p. 271-301.
- Hapke, B. W., "A Theoretical Photometric Function for the Lunar Surface," *Journal of Geophysical Research*, V. 68, No. 15, 1963, p. 4571-4586.
- Hargreaves, J. K., (See Browne, I. C., 1956)

Hargreaves, J. K., "Radio Observations of the Lunar Surface," Physical Society. Proceedings, V. 73, 1959, p. 536-537.

Harriman, A. G., Washburn, H. W., and Willingham, D. E., "Ranger Pre-flight Science Analysis and the Lunar Photometric Model," California Institute of Technology, Jet Propulsion Laboratory, TR-32-384, 1963, 38 pp.

Head, V. P., "A Lunar Surface Model for Engineering Purposes," Lunar Mission Meeting, American Rocket Society, Cleveland, Ohio, Jul. 1962.

Hodge, R. W., (See Brandt, J. C., 1961)

Hughes, V. A., "Roughness of the Moon as a Radar Reflector," Nature, V. 186, 1960, p. 873-874.

Hughes, V. A., "Diffraction Theory Applied to Radio Wave Scattering from the Lunar Surface," Physical Society. Proceedings, V. 80, No. 517, 1962, p. 1117-1127.

Jaffe, F. C., (See Badgley, P. C., 1962)

Johnston, R., (See Stair, R., 1953)

Kamenskaya, S. A., Semenov, B. I., Troitskii, V. S., and Plechkov, V. M., "Results of Prevision Measurements of Lunar Radio Emission at 1.6 CM Wavelength," Soviet Astronomy - AJ, V. 7, No. 3, 1963, p. 457.

Kopal, Z., "Water on the Moon," Discovery, V. 22, No. 4, 1961, p. 143-146.

Kotanchick, J. N., and Strauss, H. K., "Facilities for Manned Spacecraft Development," Astronautics and Aerospace Engineering, Feb. 1963, p. 78-86.

Kozyrev, N. A., "Luminescence of the Lunar and Intensity of Corpuscular Radiation of the Sun," Krymskaia Astrofizicheskaja Observatoriia. Izvestiia, V. 16, No. 148, 1956. (Russian)

Kozyrev, N. A., "Luminescence of the Lunar and Intensity of Corpuscular Radiation of the Sun," Astronomical News Letter, No. 92, 1959, p. 48-57.

Krotikov, V. D., "Some Electrical Characteristics of Terrestrial Rocks, and a Comparison with the Characteristics of the Lunar Surface Layer," Soviet Astronomy - AJ, V. 7, No. 3, 1963, p. 458.

Kusse, B. R., (See Staelin, D. H., 1963)

Laegreid, N., (See Wehner, G. R., 1960)

- Lambert, J. H., "Photometria Sive de Mensura et Gradibus Luminis, Colorum et Umbrarum," Augsburg, 1760.
- Landerer, J. J., "Sur la Polarization de la Lumiere Lunaire," Paris, 1889.
- Leadabrand, R. L., Dyce, R. B., Fredriksen, R. F., Presnell, R. I., and Schlobonn, J. C., "Evidence that the Moon is a Rough Scatterer at Radio Frequencies," Journal of Geophysical Research, V. 65, 1960, p. 3071-3078.
- Lederberg, J., and Cowie, D. B., "Moon Dust," Science, V. 127, No. 3313, 1958, p. 1437-1475.
- Levy, G. S., and Schuster, D., "Venusian and Lunar Radar Depolarization Experiments," Astronomical Journal, V. 67, No. 5, 1962, p. 320-326.
- Link, F. J., "Photometric and Actinometric Study of the Total Lunar Eclipse of September 26, 1931," Academie Des Sciences. Comptes Rendus, V. 193, 1931, p. 998-1000.
- Link, F., "Lunar Eclipses," Leipzig, Akademische Verlagsgesellschaft Geest and Portig, 1956, 127 pp. (German)
- Liu, E., "The Thermal Conductivity of the Lunar Surface," Bendix Systems Division, Technical Report FS-62-5, 1962, 25 pp.
- Marshall, C. H., "Thickness of the Procellarian System, Letronne Region of the Moon," United States Geological Survey, Professional Paper 424-0, 1961, p. D-208-211.
- Martina, E. F., and Schroder, C. D., "Analysis of the Moon's Surface by Nuclear Reactions," Space Technical Laboratories, STL-TR-60-0000-00078, Apr. 1960, 31 pp.
- Muncey, R. W., "Properties of the Lunar Surface as Revealed by Thermal Radiation," Australian Journal of Physics, V. 16, No. 1, 1963, p. 24-31.
- Murray, B. C., (See Watson, K., 1961)
- Murray, W. A., (See Browne, I. C., 1956)
- Nicholson, S. B., (See Pettit, E., 1930)
- Noskova, R. I., (See Amenitskii, N. A., 1960)
- Opik, E. J., "Surface Properties of the Moon," Progress in the Astronomical Sciences, V. 1, North Holland Publishing Company, Amsterdam, 1962.

Orlova, N. S., "Comparison of the Law of Reflection of Light for the Moon and for Certain Kinds of Rocks," Leningrad. Universitet. Seriya Matematika, Mekhanika i Astronomiya. Vestnik, No. 1, 1957, p. 152-157. (Russian)

Pawsey, J. L., "The Use of Radio Waves for Astronomical Observations," Australian Journal of Science, V. 12, 1949, p. 5-12.

Peal, S. E., "Lunar Surfacing by Seas and Lakes of Molten Lava," Liverpool Astronomical Society. Journal, V. 9, No. 1, 1890.

Pettengill, G. H., (See Evans, J. V., 1963)

Pettit, E., and Nicholson, S. B., "Lunar Radiation and Temperatures," Astrophysical Journal, V. 71, 1930, p. 102-135.

Pettit, E., "The Co-Albedo of the Moon," Astrophysical Journal, V. 102, 1945, p. 14-16.

Plechkov, V. M., (See Kamenskaya, S. A., 1963)

Poole, H. G., (See Badgley, P. C., 1962)

Porfirev, V. A., (See Bondar, L. N., 1962)

Presnell, R. I., (See Leadabrand, R. L., 1960)

Press, F., "The Geological Aspects of the Interior of the Moon," Lunar and Planetary Exploration Colloquium. Proceedings, V. 1, No. 1, 1958, p. 15-18.

Radlova, L. N., "A Study of the Color Contrasts of the Lunar Surface, Dissertation," Astronomicheskii Zhurnal, V. 20, No. 5-6, 1943. (Russian)

Ranyard, A. C., "Is the Moon Covered with Ice," Knowledge, Dec. 1890.

Roberts, W. A., "Notes on Lunar Surface Conditions," Boeing Company Report, D2-5818, 1960, 21 pp.

Rosse, "Measurements on the Polarization of Light from the Moon," Dublin, 1878.

Rougier, G., "Photometric Comparison of Moon and Sun. Photo-electric Albedo of the Moon," Academie des Sciences. Comptes Rendus, V. 202, 1936, p. 463-465.

Ryan, J. A., "Some Predictions as to the Possible Nature and Behavior of the Lunar Soil," 11th International Conference on the Mechanics of Soil-Vehicle Systems, Turin, Italy, Jun. 1961.

Saari, J. M., (See Shorthill, R. W., 1961)

Salisbury, J. W., and Van Tassel, R., "State of the Lunar Dust,"
Astronomical Society of the Pacific. Publications, V. 74, No. 438,
1962, p. 245-247.

Salomonovich, A. E., "Radio Emission of the Moon at 8 Millimeters,"
Soviet Astronomy - AJ, V. 2, No. 1, 1958, p. 112-118.

Salomonovich, A. E., (See Amenitskii, N. A., 1960)

Schlobonn, J. C., (See Leadabrand, R. L., 1960)

Schroder, C. D., (See Martina, E. F., 1960)

Schuch, R. L., (See Van Dilla, M. A., IAMS-2526)

Schuster, D., (See Levy, G. S., 1962)

Semejkin, B., (See Barabascheff, N., 1933)

Semenov, B. I., (See Kamenskaya, S. A., 1963)

Senior, T. A., (See Fensler, W. E., 1959)

Senior, T. A., and Siegel, K. M., "A Theory of Radio Scattering by
the Moon," National Bureau of Standards. Journal of Research, Section
D, Radio Propagation, V. 64D, No. 3, 1960, p. 217-229.

Senior, T. A., Siegel, K. M., and Giraud, A., "Some Physical Constants
of the Lunar Surface as Indicated by its Radar Scattering and Thermal
Emission Properties," Preprint, IAU Symposium No. 11, Leningrad, (1960),
Cambridge, 1962.

Sharonov, V. V., "An Attempt at Petrographic Investigation of the
Surface of the Moon by Simultaneous Photometric and Colorimetric
Observation," Astronomische Zhurnal, V. 31, 1954, p. 442-452.

Sharonov, V. V., "A New Russian View About the Moon's Surface,"
New Scientist, V. 6, No. 150, 1959, p. 564.

Shorthill, R. W., and Saari, J. M., "Cooling Curves for Some Rayed
Craters During a Lunar Eclipse," Astronomical Society of the Pacific.
Publications, V. 73, 1961, p. 335.

Siegel, K. M., (See Fensler, W. E., 1959)

Siegel, K. M., (See Senior, T. A., 1960)

Siegel, K. M., "Summary of Methods and Results of Estimation of the Physical Constants of the Lunar Surface," University of Michigan Radiation Laboratory, Report No. RL-175, 1961.

Siegel, K. M., (See Senior, T. A., 1962)

Siems, P. L., (See Badgley, P. C., 1962)

Sinton, W. M., "Observations of Solar and Lunar Radiation at 1.5 Millimeters," Optical Society of America. Journal, V. 45, No. 11, 1955, p. 975-979.

Sinton, W. M., "Observation of a Lunar Eclipse at 1.5 mm," Astrophysical Journal, V. 123, No. 2, 1956, p. 325-330.

Staelin, D. H., Barrett, A. H., and Kusse, B. R., "Measurements of the Sun, Moon, Venus, and Tau A at 1.18 CM Wavelength," Abstract of Paper Presented at the 113th Meeting of the American Astronomical Society, 17-20 April 1963, at the Kitt Peak National Observatory, University of Arizona, Tucson, Arizona, in Astronomical Journal, V. 68, No. 5, 1963, p. 271-301.

Stair, R., and Johnson, R., "Ultraviolet Spectral Radiant Energy Reflected from the Moon," National Bureau of Standards. Journal of Research, V. 51, 1953, p. 81-84.

Steinberg, J. L., and Zisler, S., "Detection of Solar Radio Radiation Reflected by the Moon," Academie des Sciences. Comptes Rendus, V. 229, 1949, p. 811-812. (French)

Straiton, A. W., "Moon Reflection Studies with Bistatic Radar at 3000 MC," Electrical Engineering, V. 79, No. 6, 1960, p. 503-506.

Strauss, H. K., (See Kotanchick, J. N., 1963)

Strezhneva, K. M., (See Bondar, L. N., 1962)

Stuart, R. V., (See Wehner, G. R., 1960)

Sytinskaya, N. N., "A Composite Catalogue of Absolute Values of the Visual Reflecting Power of Lunar Objects," Astronomicheskii Zhurnal, V. 30, No. 3, 1953, p. 295-301.

Sytinskaya, N. N., "New Data on the Meteoric Slag Theory of the Formation of the Outer Layer of the Lunar Surface," Soviet Astronomy - AJ, V. 3, 1959, p. 310-314.

Sytinskaya, N. N., "Probable Dimensions of Micro-features of the Lunar Surface," ARS Journal, V. 32, No. 3, 1962, p. 480-489.

- Sytinskaya, N. N., "The Probable Scale of Unevenness of Micro-Reliefs of the Moon's Surface," Mitt. Kommission Planetenphysik Nr., V. 1, p. 81-84. (Russian)
- Tait, G. T., "An Introduction to the Geology of the Moon," Sheffield University Geological Society. Journal, V. 3, No. 2, 1958, p. 45-50.
- Teifel, V. G., "The Spectral Differences of Various Regions of the Lunar Surface," Astr. Cirk., Izdav. Bjuro. Astr. Soobshch. Akad. Nauk SSSR, V. 196, 1958, p. 5-6. (Russian)
- Teifel, V. G., "On the Difference in the Spectral Properties of Areas on the Lunar Surface," Soviet Astronomy - AJ, V. 3, 1960, p. 955-959.
- Teifel, V. G., "Spectropolarimetry of Some Regions of the Lunar Surface," Soviet Astronomy - AJ, V. 4, 1961, p. 669-673.
- Tomkins, H. G., "Three Features of the Lunar Crust," Royal Astronomical Society. Monthly Notices, V. 89, 1929, p. 198-201.
- Troitskii, V. S., (See Zelinskaya, M. R., 1960)
- Troitskii, V. S., "Some Results of the Moon Exploration by Radio-physical Methods," Space Research, Proceedings of the International Space Science Symposium, 3rd, Washington, North-Holland Publishing Company, Amsterdam, 1962.
- Troitskii, V. S., (See Kamenskaya, S. A., 1963)
- Troitskii, V. S., "A New Possibility for Determining the Density of the Moon's Surface Rocks," Soviet Astronomy - AJ, V. 7, No. 3, 1963, p. 457.
- Urey, H. C., "Origin of the Surface Structure of the Moon," Angewandte Chemie, V. 68, No. 17-18, 1956, p. 533-539. (German)
- Urey, H. C., "The Chemistry of the Moon," Lunar and Planetary Exploration Colloquium. Proceedings, V. 1, No. 3, 1958, p. 1-9.
- Urey, H. C., "On Possible Parent Substances for the C2 Molecules Observed in the Alphonsus Crater," Astrophysical Journal, V. 134, 1961, p. 268.
- Van Diggelen, J., "Photometric Properties of Lunar Crater Floors," Rech. Astr. Obs. Utrecht., V. 14, No. 2, 1959, 174 pp.
- Van Dilla, M. A., Schuch, R. L., and Anderson, E. C., "Moonspec-Design of Detector for Measurement of Radioactivity of Lunar Surface," Los Alamos Scientific Laboratory, Report No. LAMS-2526, p. 186-196.

- Van Dilla, M. A., and Anderson, E. C., "Studies of the Feasibility of Designing a Lunar Gamma Ray Spectrometer," Los Alamos Scientific Laboratory, Report No. LAMS-2455, p. 163-169.
- Van Dilla, M. A., and Anderson, E. C., "Moonspec-Measurement of Radioactivity of the Lunar Surface," Los Alamos Scientific Laboratory, Report No. LAMS-2455, p. 123-126.
- Van Liempt, J. M., "Brightness of the New Moon," Nature, V. 161, 1948, p. 27.
- Van Tassel, R., (See Salisbury, J. W., 1962)
- Vand, V., "Lunar Dust and Terrestrial Ice Nucleus Concentration," Nature, V. 198, No. 4876, 1963, p. 176-177.
- Vsekhsvjatskij, S. K., "Observations of the Partial Lunar Eclipse of March 24, 1959," Astr. Cirk., Izdav. Bjuro Astr. Soobshch. Akad. SSSR, No. 201, 1959, p. 7-9.
- Waak, J. A., "An Investigation of Possible Variations in the Brightness Temperature of the Moon at 21 CM," Astronomical Journal, V. 66, 1961, p. 298.
- Walter, L. S., "Lunar Magmatic Differentiation," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in American Geophysical Union. Transactions, V. 43, No. 4, Dec. 1962.
- Warner, B., "The Nature of the Surfaces of the Lunar Maria," Astronomical Society of the Pacific. Publications, V. 73, 1961, p. 349-350.
- Washburn, H. W., (See Harriman, A. G., 1963)
- Watson, K., Murray, B. C., and Brown, H., "On the Possible Presence of Ice on the Moon," Journal of Geophysical Research, V. 66, 1961, p. 1598-1600.
- Wegner, G., "Colorimetric Measurements of Lunar Features," Astronomical Society of the Pacific. Publications, V. 72, No. 428, 1960, p. 364-365.
- Wehner, G. K., "Sputtering Effects on the Moon's Surface," ARS Journal, V. 31, No. 3, 1960, p. 438.
- Wehner, G. R., Laegreid, N., and Stuart, R. V., "Study of Sputtering of Materials," Final Report Under AF Contract AF 19(604)-5536, AFRCR-TR-60-418, 1960, 68 pp.

Weil, N. A., "Probable Soil Conditions on the Moon and Terrestrial Planets," First International Conference on the Mechanics of Soil-Vehicle Systems, Turin, Italy, June 1961.

Weil, N. A., "Discussion of Paper - Some Predictions as to Possible Nature and Behavior of the Lunar Soil," By J. A. Ryan, First International Conference on the Mechanics of Soil-Vehicle Systems, Turin, Italy, June 1961.

Willingham, D. E., (See Harriman, A. G., 1963)

Winterkorn, H. F., "Soil Stabilization Methods and Techniques with a View Toward Lunar Soil Stabilization," Unpublished Reports, Princeton University, 1961-1962.

Zelinskaya, M. R., Troitskii, V. S., and Fedoseev, L. I., "Lunar Radio Emissions at 1.63 CM Wavelength," Soviet Astronomy - AJ, V. 3, No. 4, 1960, p. 628-632.

Zelinskaya, M. R., (See Bondar, L. N., 1962)

Zisler, S., (See Steinberg, J. L., 1949)

TOPOGRAPHICAL FEATURES

Aikens, R., Powers, W., and Hynek, J. A., "High-Contrast Electronic Image Orthicon Techniques Applied to the Lunar Surface," *Astronomical Journal*, V. 66, 1961, p. 277.

Alter, D., "The Nature of the Lunar Rays," *Astronomical Society of the Pacific. Publications*, V. 67, 1955, p. 237-245.

Alter, D., "The Nature of Lunar Maria," *Astronomical Society of the Pacific. Publications*, V. 68, 1956, p. 38-45.

Alter, D., "Scientific Aspects of the Lunar Surface," *Lunar and Planetary Exploration Colloquium. Proceedings*, V. 1, No. 1, 1958, p. 2-10.

Alter, D., "The Crater Linne," *Lunar and Planetary Exploration Colloquium. Proceedings*, V. 1, No. 3, 1958, p. 33-38.

Alter, D., "The Alphonsus Story," *Lunar and Planetary Exploration Colloquium. Proceedings*, V. 1, No. 4, 1959, p. 19-22.

Alter, D., "Obscurations of Lunar Features," *Science*, V. 129, No. 3358, 1959, p. 1282.

Alter, D., "The Nature of the Lunar Rays," *The Griffith Observer*, V. 25, 1961, p. 142-154.

Alter, D., "The General Background of the Lunar Surface," *Astronomical Society of the Pacific. Publications*, V. 75, 1963, p. 30-35.

Anonymous, "The Lunar Crater Linne," *British Astronomical Association Journal*, V. 71, 1961, p. 36.

Arthur, D. B., "The Distribution of Lunar Craters," *British Astronomical Association. Journal*, V. 64, 1954, p. 127-132.

Ashbrook, J., "Linne in Fact and Legend," *Sky and Telescope*, 1960, p. 87-88.

Ashbrook, J., "The Lunar Straight Wall," *Astronomical Society of the Pacific. Publications*, V. 72, 1960, p. 55-58.

Ashbrook, J., "Report of the A.L.P.O. Observations of Crater Times at the March 13, 1960, Lunar Eclipse," *The Strolling Astronomer*, V. 14, No. 11-12, 1960, p. 163-167.

- Ashbrook, J., "Dimensions of the Lunar Dome Kies 1," *The Strolling Astronomer*, V. 15, No. 1-2, 1961, p. 1-3.
- Ashbrook, J., "Discussion of Umbral Contact Crater Timings at the Lunar Eclipse of March 2, 1961," *The Strolling Astronomer*, V. 15, No. 5-6, 1961, p. 94-96.
- Avigliano, D. P., "Unusual Lunar Shadows," *The Strolling Astronomer*, V. 7, 1953, p. 153-155.
- Baldwin, R. B., "The Craters of the Moon," *Scientific American*, V. 181, No. 1, 1949, p. 20-24.
- Barabashov, N. P., "Structure of the Moon's Surface and Investigation of the First Photographs of its Far Side," *AIAA Journal, Russian Supplement*, V. 1, No. 3, 1963, p. 744-747.
- Beard, D. B., "Absence of Craters on the Far Side of the Moon," *Nature*, V. 184, 1959, p. 1631.
- Beard, D. P., "The Impact Origin of the Moon's Craters," *Popular Astronomy*, V. 25, 1917, p. 167.
- Beer, M., and Maedler, J. H., "Der Mond Oder Allgemeine Vergleichende Selenographic," Berlin, 1837.
- Benario, F., "The Bubble Theory. An Explanation of the Moon's Surface Features. An Answer to my Critics," *Vega*, No. 11, 1953, p. 41-44.
- Benes, K., "Remarks to the Tectonic Structure of Some Lunar Maria," *Rise Hvezd*, V. 40, 1959, p. 208-212.
- Benes, K., "Remarks to the Tectonic Structure of Some Lunar Formations," *Rise Hvezd*, V. 40, 1959, p. 233-236.
- Benton, R., "Comparisons of Possible Crater-Forming Processes on the Moon," *Melpar Technical Note*, 1962, 11 pp.
- Blagg, M. A., "Collated List of Lunar Formations," Edinburgh, 1913.
- Bond, W. H., (See Poppendiek, H. F., 1959)
- Boneff, N., "On the Origin of the Elliptical or Circular Areas on the Moon and of Terrestrial Seismic Regions," *Academie des Sciences. Comptes Rendus*, V. 2, 1949, p. 17-20.
- Brereton, R. G., "The Lunar Surface," *Geotimes*, V. 6, No. 2, 1961, p. 22-26.
- Brown, H., (See Pohn, H. A., 1961)

Brown, H., (See Pohn, H. A., 1962)

Brown, H., (See Watson, K., 1962)

Bulow, K. Von, "Selenotektonik und Geotektonik-Versuch Zur Ableitung Einer Planetarischen Ausgangstektonik," Geotektonisches Symposium Zu Ehren Von Hans Stille, Stuttgart, Kommissions-Verlag, 1956, p. 45-51. (German)

Bulow, K. Von, "Entstehung und Werdegang der Mondkruste," Raketentechnik und Raumfahrtforschung, V. 3, 1960, p. 93-97. (German)

Calkins, K., "Hot Spots on the Moon," Boeing Magazine, V. 31, No. 2, 1961, p. 12-13.

Carpenter, J., (See Nasmyth, J., 1874)

Chemla-Lamech, F., "Etude Monographique des Plus Grandes Formations Lunaires," Toulouse, 1935.

Cohen, A. J., "Megashatter Cone Hypothesis of the Origin of Lunar Volcanoes," Nature, V. 192, 1961, p. 346.

Coleman, A., "Selenomorphology," Journal of Geology, V. 60, No. 5, 1952, p. 451-460.

Copeland, J., (See Tyler, W. C., 1962)

Daniels, F. B., "Radar Determination of the Root Mean Square Slope of the Lunar Surface," Journal of Geophysical Research, V. 68, No. 2, 1963, p. 449-453.

Delmotte, G., "Recherches Selenographiques et Nouvelle Theorie des Criques Lunaires," Paris, 1923.

Ebert, "On the Ringed Mountains of the Moon," Sirius, Jan. 1891.

Ebert, "On the Origin of the Circular Mountains on the Moon," Himmil and Erde, No. 4-5, Jan.-Feb. 1891.

Eggleton, R. E., and Marshall, C. H., "Preimbrian History of the Lunar Surface," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in American Geophysical Union. Transactions, V. 43, No. 4, Dec. 1962.

Elger, T. G., "The Moon Surveyed in Common Telescopes," Liverpool Astronomical Society. Journal, 1886-1890.

- Elger, T. G., "Selenographical - Phocylides, Wargentín, Etc.," *English Mechanic*, V. 53, No. 1361-1364, 1891.
- Elger, T. G., "The Moon, A Full Description and Map of its Principal Physical Features," George Philip and Son, London, 1895.
- Engel, K. H., "On the Origin of the Moon's Surface Features - Part I," *International Lunar Society. Journal*, V. 1, 1958, p. 55-63.
- Fauth, P., "A New View of the Formation of Lunar Craters," *Sirius*, May 1891.
- Fielder, G., "The Physical Nature of the Surface of the Moon," *British Interplanetary Society. Journal*, V. 17, 1959, p. 57-58.
- Fielder, G., "A Theory of the Origin of Lunar Rills," *Sky and Telescope*, V. 19, 1960, p. 334-337.
- Fielder, G., "Ptolemaeus A and the Floor of Ptolemaeus," *British Astronomical Association. Journal*, V. 70, 1960, p. 190-194.
- Fielder, G., "A Theory of the Origin of Lunar Rilles, with Particular Reference to the Ariadaeus-Hyginus Rille System," *International Lunar Society. Journal*, V. 1, No. 7, 1960, p. 166-175.
- Fielder, G., "On the Origin of Lunar Rays," *Astrophysical Journal*, V. 134, 1961, p. 425-434.
- Fielder, G., "Lunar Wrinkle Ridges and Terrestrial Mid-Oceanic Ridges," *The Observatory*, V. 81, No. 923, 1961, p. 140.
- Fielder, G., "Ray Elements and Secondary-impact Craters on the Moon," *Astrophysical Journal*, V. 135, No. 2, 1962, p. 632-637.
- Fielder, G., "Determination of Relative Ages of Lunar Craters by Albedo and Polarization Measurements," *Nature*, V. 197, No. 4862, 1963, p. 69-70.
- Fielder, G., "Nature of the Lunar Maria," *Nature*, V. 198, No. 4887, 1963, p. 1256-1260.
- Fielder, G., "Terrestrial Oceanic Ridges and Lunar Mare Ridges," *Nature*, V. 199, No. 4892, 1963, p. 473.
- Fielder, G., "On the Overlapping of Lunar Craters," *British Astronomical Association. Journal*, V. 73, No. 2, 1963, p. 62.
- Firsoff, V. A., "Surface of the Moon," Hutchinson, London, 1961, 128 pp.

Firsoff, V. A., "The Compressive and Tensional Stage in Lunar Maria," British Astronomical Association. Journal, V. 72, No. 3, 1963, p. 114-118.

Firsoff, V. A., "Selenological Studies II," British Astronomical Association. Journal, V. 73, No. 7, 1963, p. 269-271.

Franz, J. H., "Die Randlandschaften des Mondes," 1913.

Fremlin, J. H., "Volcanoes on the Moon," Nature, V. 183, No. 4656, 1959, p. 239.

Fulmer, C. V., "Noted Similarities Between Small Scale Craters and Lunar Craters," Boeing Company Document D2-90455, 1963, 23 pp.

Galilei, G., "Sidereus Nuntius," Venice, 1610.

Gardner, G., "Nature of the Surface of the Moon," Grandison Gardner, 1960, 6 pp., AD-256650.

Gault, D. E., Shoemaker, E. M., and Moore, H. J., "The Flux and Distribution of Fragments Ejected from the Lunar Surface by Meteoroid Impact," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in American Geophysical Union. Transactions, V. 43, No. 4, Dec. 1962.

Gaydon, A. G., and Learner, R. M., "Simulation of Lunar Craters - A Blow-Hole Theory," Nature, V. 183, No. 4635, 1959, p. 37.

Giamboni, L., "Lunar Rays - Their Formation and Age," Astrophysical Journal, V. 130, 1959, p. 324-335.

Giamboni, L. A., "Lunar Rays - Their Formation and Age," Rand Corporation, Report P-1409, Aug. 6, 1958, 13 pp.

Gibson, J. E., "Lunar Surface Characteristics Indicated by the March, 1960 Eclipse and other Observations," Astrophysical Journal, V. 133, 1961, p. 1072-1080.

Gifford, A. C., "The Mountains of the Moon," New Zealand Journal of Science and Technology, V. 7, 1924, p. 129-142.

Gilbert, G. K., "The Face of the Moon, A Study of the Origin of its Features," Washington Philosophical Society. Bulletin, V. 12, 1893, p. 241-292.

Gilvarry, J. J., and Hill, J. E., "The Impact Theory of the Origin of Lunar Craters," Rand Corporation, P-785, 1955, 9 pp.

Gilvarry, J. J., and Hill, J. E., "The Impact Theory of the Origin of Lunar Craters," *Astronomical Society of the Pacific. Publications*, V. 68, 1956, p. 223-229.

Gilvarry, J. J., "Nature of the Lunar Surface," *Nature*, V. 180, 1957, p. 911-912.

Gilvarry, J. J., "Origin and Nature of Lunar Surface Features," *Nature*, V. 188, 1960, p. 886-890.

Gold, T., "The Lunar Surface," *Royal Astronomical Society. Monthly Notices*, V. 115, No. 6, 1955.

Gold, T., "The Surface of the Moon," *Lecture, American Rocket Society, Princeton University*, 1962.

Goodacre, W., "The Moon with a Description of its Surface Features," *Bournemouth*, 1931.

Goodwin, A. H., "Cave Dust and Lunar Craters," *Astronomical Society of South Africa. Monthly Notices*, V. 17, 1958, p. 6-8.

Graff, K., "Ray System of the Lunar Crater Tycho," *Akademie der Wissenschaften (Vienna). Mathematisch-Naturwissenschaftliche Klasse. Sitzungsberichte*, V. 142, No. 7, 1933, p. 309-311.

Green, J., "Comparison of Lunar and Terrestrial Surface Features," *Lunar and Planetary Exploration Colloquium. Proceedings*, V. 1, No. 5, 1959, p. 2-3.

Green, J., and Poldervaart, A., "Lunar Defluidization and its Implications," *International Geological Congress, Report of the Twenty-First Session, Pt. 2*, 1960, p. 17-18.

Green, J., "Geology for the Man on the Moon," *New Scientist*, V. 9, No. 223, 1961, p. 465-469.

Gruithuisen, F., "Der Mond und Seine Natur," *Munich*, 1844.

Guenther, S., "Vergleichende Mond-Und Erdkunde," *Braunschweig*, 1911.

Gutuler, A., "The Distribution of Maria on the Moon," *Phys. Verhandl. Deutsch*, V. 11, No. 10-11, 1960, p. 219-220. (German)

Haas, W. H., "Problem of Lunar Changes," *Royal Astronomical Society of Canada. Journal*, V. 32, 1938, p. 347-352.

Haas, W. H., "Does Anything Ever Happen on the Moon," *Royal Astronomical Society of Canada. Journal*, V. 36, Jul.-Aug. 1942, p. 237-272.

Haas, W. H., "Does Anything Ever Happen on the Moon," Royal Astronomical Society of Canada. Journal, Sept. 1942, p. 317-328.

Haas, W. H., "Does Anything Ever Happen on the Moon," Royal Astronomical Society of Canada. Journal, Oct. 1942, p. 361-376.

Haas, W. H., "Does Anything Ever Happen on the Moon," Royal Astronomical Society of Canada. Journal, V. 36, Nov. 1942, p. 397-408.

Haas, W. H., "An Apparent Volcanic Eruption in the Lunar Crater Alphonsus," The Strolling Astronomer, V. 12, 1958, p. 119-123.

Hacker, S. G., and Stewart, J. Q., "Remarks on the Lunar Ray Craters," Astrophysical Journal, V. 81, 1935, p. 37-44.

Hackman, R. J., "Photointerpretation of the Lunar Surface," Photogrammetric Engineering, V. 27, No. 3, 1961, p. 377-386.

Hapke, B., and Van Horn, H., "Photometric Studies of Complex Surfaces, with Applications to the Moon," Journal of Geophysical Research, V. 68, No. 15, 1963, p. 4545-4570.

Harper, A. F., (See Jaeger, J. C., 1950)

Hedervari, P., "Volcanic Bombs from the Moon," British Astronomical Association. Journal, V. 73, No. 2, 1963, p. 71-73.

Herring, A. K., "Observing the Moon," Sky and Telescope, V. 21, No. 1, 1961, p. 39.

Herring, A. K., "Saucers in Ptolemaeus," The Strolling Astronomer, V. 15, No. 3-4, 1961, p. 62-64.

Hevelius, J., "Selenographia Sive Lunae Descriptio," Danzig, 1647, 563 pp.

Hibbs, A. R., "Linear Arrays of Small Craters," Planetary and Space Science, V. 8, 1961, p. 121.

Hill, J. E., (See Gilvarry, J. J., 1955)

Hill, J. E., (See Gilvarry, J. J., 1956)

Hynek, J. A., (See Aikens, R., 1961)

Jaeger, J. C., and Harper, A. F., "Nature of the Surface of the Moon," Nature, V. 166, 1950, p. 1026.

Jaschek, C. R., "Earth Satellites and Lunar Formations," Observatory, V. 80, 1960, p. 119-120.

Kellogg, W. W. (Chairman), "Earth Sciences Session," Lunar and Planetary Exploration Colloquium. Proceedings, V. 2, No. 1, 1959, p. 15-33.

Kepler, J., "Somnium Seu de Astronomia Lunari," 1634.

Kopal, Z., "Volcano on the Moon," New Scientist, V. 4, 1958, p. 1362-1364.

Kopal, Z., "Origin of the Lunar Craters and Maria," Nature, V. 183, 1959, p. 169-170.

Kopal, Z., "Mathematical Elements of Lunar Topography," University of Wisconsin, Technical Summary Report 180, Contract DA 11-022-ORD-2059, Sept. 1960, 35 pp., AD-247399.

Kopal, Z., et al., "Studies in Lunar Topography," GRD Research Notes No. 67, AFCRL-852, AF 61(052)-168, 1961, 188 pp., AD-275135.

Kozyrev, N. A., "Observation of a Volcanic Process on the Moon," Sky and Telescope, V. 18, 1959, p. 184-186.

Kozyrev, N. A., "Volcanic Phenomena on the Moon," Nature, V. 198, No. 4884, 1963, p. 979-980.

Kreiter, T. J., "Dating Lunar Surface Features by Using Crater Frequencies," Astronomical Society of the Pacific. Publications, V. 72, 1960, p. 393-398.

Kreiter, T. J., "A Possible Method of Dating the Lunar Surface Features," California Institute of Technology, Jet Propulsion Laboratory Technical Release No. 34-57, 9 pp., AD-236388.

Krejci-Graf, K., "Structure of the Moon's Surface in Comparison with the Earth, Data and Interpretation," Astronautica Acta, V. 5, No. 3-4, 1959, p. 163-225. (German)

Kuiper, G. P., "On the Origin of the Lunar Surface Features," National Academy of Sciences. Proceedings, V. 40, No. 12, 1954, p. 1096-1112.

Kuiper, G. P., "The Surface Structure and History of the Moon," Lecture, Space Technology Laboratories, Redondo Beach, California, V. 1, No. 9, 1961.

Learner, R. M., (See Gaydon, A. G., 1959)

Leitich, F., "Selenology," Gerlands Beitrage Zur Geophysik, V. 46, No. 3, 1936, p. 301-316.

Lenham, A. P., "The Copernician Ray System," British Astronomical Association. Journal, V. 65, 1955, p. 241-246.

- Leroy, L. W., "Geologist's Role in Selenology," Geological Society of America. Bulletin, V. 71, No. 12, Pt. 2, 1960, p. 2102.
- Leroy, L. W., "Lunar Features and Lunar Problems," Geological Society of America. Bulletin, V. 72, 1961, p. 591-604.
- Lipskii, Iu. N., "Distinctive Features of the Spectrophotometric Studies of the Lunar Surface," Soviet Astronomy - AJ, V. 3, No. 2, 1959, p. 315-319.
- Liu, S., "Normal Lunar Impact Analysis," Journal of Astronautical Science, V. 7, 1960, p. 35-39.
- Iyubarsky, K. A., "An Attempt to Determine the Absolute Age of Lunar Formations," California Institute of Technology, Jet Propulsion Laboratory, Translated by J. L. Zygielbaum, 1961.
- MacDonald, T. L., "Studies in Lunar Statistics," British Astronomical Association. Journal, V. 39-50, 1929-1940.
- MacVey, J. W., "Craters of the Moon," Spaceflight, V. 3, 1961, p. 13-15.
- MacVey, J. W., "Unchanging Moon," Spaceflight, V. 3, 1961, p. 210-212.
- MacVey, J. W., "Three Theories on the Craters of the Moon," Air Force and Space Digest, V. 4, No. 3, 1961, p. 74-76.
- Maedler, J. H., (See Beer, M., 1837)
- Markov, A. V., "Formation of the Relief and Physical Properties of the Surface of the Moon," Priroda, No. 9, 1951, p. 12-20. (Russian)
- Marshall, C. H., (See Eggleton, R. E., 1962)
- Marshall, B. K., "The Origin of the Lunar Craters, A Summary," Popular Astronomy, V. 51, 1953, p. 415-424.
- Mason, A. C., "Lunar Terrain Study," Military Engineer, V. 52, 1960, p. 144.
- McCall, G. H., (See Moore, P. A., 1963)
- McIntosh, R. A., "Depression of Lunar Craters," Royal Astronomical Society of Canada. Journal, V. 35, 1941, p. 381-385.
- McIntosh, R. A., "Features of the Lunar Crater Aristarchus," British Astronomical Association. Journal, V. 71, 1961, p. 380-388.
- Mikhailov, A. A., "Backside of the Moon," Weltraumfahrt, V. 11, No. 4, 1960, p. 107-109. (German)

Mikhailov, A. A., "The Other Side of the Moon," *Astronautics*, V. 6, No. 3, 1961, p. 40-41.

Milling, L., "Two Lunar Formations," *Irish Astronomical Journal*, V. 5, No. 6, 1959, p. 173-177.

Miyamoto, S., "A Geological Interpretation of the Lunar Surface," *Planetary and Space Science*, V. 2, 1960, p. 256-260.

Moore, H. J., (See Gault, D. E., 1962)

Moore, P. A., "Some Lunar Crater Problems," *Sky and Telescope*, Mar. 1956, p. 201.

Moore, P. A., "The Alphonsus Outbreak," *Spaceflight*, V. 2, No. 1, 1959, p. 11, 21.

Moore, P. A., "Some Lunar Curiosities," *Vega*, V. 1, 1959, p. 64-67.

Moore, P. A., "The Reported Outbreak in Alphonsus - An Analysis," *Strolling Astronomer*, V. 15, No. 3-4, 1961, p. 64-67.

Moore, P. A., and McCall, G. H., "Distribution and Origin of Lunar Craters," *Nature*, V. 197, No. 4884, 1963, p. 273.

Moore, P. A., "A Survey of the Moon," W. W. Norton Company, 1963, 333 pp.

Moore, P. A., "A Note on Lunar Ghost Craters," *British Astronomical Association. Journal*, V. 73, No. 7, 1963, p. 272.

Morrow, T. H., "The Origin of the Moon's Surface Features," *Kentucky Engineer*, V. 23, No. 2, 1961, p. 14-15, 57.

Murray, B. C., (See Pohn, H. A., 1961)

Murray, B. C., (See Pohn, H. A., 1962)

Murray, B. C., (See Watson, K., 1962)

Nash, D. B., "On the Distribution of Lunar Maria and the Synchronous Rotation of the Moon," *Icarus*, V. 1, No. 4, 1963, p. 372-373.

Nasmyth, J., and Carpenter, J., "The Moon, considered as a Planet, a World, and a Satellite," John Murray, London, 1874.

Natanson, S. G., "Photo-Relay Study of Lunar Microrelief," *Akademiia Nauk SSSR. Doklady*, V. 15, No. 2, 1937, p. 77-78.

Neison, E., "The Moon and The Condition and Configurations of its Surface," Longmans, Green and Company, London, 1876.

Hockere, G. De, "Analytical Representation of Lunar Relief," Academie des Sciences. Comptes Rendus, V. 202, 1936, p. 1657-1658.

O'Keefe, J. A., "Lunar Rays," Astrophysical Journal, V. 126, No. 2, 1957, p. 466.

Opik, E. J., "The Lunar Surface as an Impact Counter," Royal Astronomical Society. Monthly Notices, V. 120, 1960, p. 404-411.

Opik, E. J., "Surface Conditions on Nearest Planets, I - The Moon," American Journal of Physics, V. 28, No. 7, 1960, p. 618.

Orlova, N. S., "Photometrical Relief of the Lunar Surface," Astronomicheskii Zhurnal, V. 33, No. 1, 1956, p. 93-100. (Russian with English Summary)

Palm, A., and Strom, R. G., "The Craters in the Lunar Walled Plain, Ptolemaeus," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in American Geophysical Union. Transactions, V. 43, No. 4, Dec. 1962.

Palm, A., (See Strom, R. G., 1963)

Paluzie-Borrell, A., "Formation of the Lunar Craters," Urania, V. 38, 1953, p. 89-166. (Spanish)

Pickering, W. H., "The Lunar Crater Plato," Harvard College Observatory. Annals, V. 32, 1900, p. 174.

Pickering, W. H., "The Origin of the Lunar Formation," Astronomical Society of the Pacific. Publications, V. 32, 1920, p. 116-125.

Pohn, H. A., Murray, B. C., and Brown, H., "New Applications of Lunar Shadow Variation Studies," Astronomical Society of the Pacific. Publications, V. 73, 1961, p. 333.

Pohn, H. A., Murray, B. C., and Brown, H., "New Applications of Lunar Shadow Studies," Astronomical Society of the Pacific. Publications, V. 74, No. 437, 1962, p. 93-105.

Pohn, H. A., "New Measurements of Steep Lunar Slopes," Astronomical Society of the Pacific. Publications, V. 75, No. 443, 1963, p. 186-188.

Poldervaart, A., (See Green, J., 1960)

Poppendiek, H. F., and Bond, W. H., "Recent Observations of Possible Volcanic Activity within the Lunar Crater Alphonsus," Astronomical Society of the Pacific. Publications, V. 71, No. 420, 1959, p. 233-235.

- Powers, W., (See Aikens, R., 1961)
- Puiseux, P., "La Terre et la Lune," Paris, 1908.
- Radlova, L. N., "Question of Luminous Rays on the Moon's Surface," *Astronomicheskii Zhurnal*, SSSR, V. 37, No. 6, 1960, p. 1053-1055.
- Radlova, L. N., "The Color of Bright Rays on the Lunar Surface," *Soviet Astronomy - AJ*, 7. 4, 1961, p. 990-992.
- Robinson, L. J., "Banded Craters," *British Astronomical Association. Journal*, V. 73, No. 1, 1963, p. 33-38.
- Ruud, I., "Formation of Ring Mountains," *Zeitschrift Fuer Astrophysik*, V. 8, 1934, p. 295-343.
- Ryan, J. A., "The Case Against Thermal Fracturing at the Lunar Surface," *Journal of Geophysical Research*, V. 67, No. 6, 1962, p. 2549-2558.
- Salisbury, J. W., "The Origin of Lunar Domes," *Lunar and Planetary Exploration Colloquium. Proceedings*, V. 2, No. 2, 1960, p. 22-26.
- Salisbury, J. W., "The Origin of Lunar Domes," *Astrophysical Journal*, V. 134, No. 1, 1961, p. 126-131.
- Salisbury, J. W., "Discussion of a Paper by C. D. McGillem and B. P. Miller - Lunar Surface Roughness from Crater Statistics," *Journal of Geophysical Research*, V. 68, No. 7, 1963, p. 2065.
- Salisbury, J. W., "Lunar Surface Characteristics," Paper Presented at the Society of Automotive Engineers, Detroit, Michigan, Jan. 14-18, 1963, 15 pp.
- Sawtell, W., "A Possible Interpretation of Schroters Valley and other Lunar Sinuous Rilles," Abstract of Paper Presented at the 113th Meeting of the American Astronomical Society, 17-20 April 1963, at the Kitt Peak National Observatory, University of Arizona, Tucson, Arizona, in *Astronomical Journal*, V. 68, No. 5, 1963, p. 271-301.
- Schmeidler, F., "Formation of the Lunar Craters," *Naturwissenschaftliche Rundschau*, V. 13, No. 6, 1960, p. 207-209. (German)
- Schmidt, J. J., "Der Mond," Leipzig, 1856.
- Schmidt, J. J., "Concerning Rills on the Moon," Leipzig, 1866.
- Scott, W., "The Distribution and the Probable Origin of the Lunar Craters," *Society for Research on Meteorites. Contributions*, V. 3, No. 1, 1942, p. 31-36.

Shaler, N. S., "A Comparison of the Features of the Earth and Moon," Smithsonian Contributions to Knowledge, V. 34, 1903.

Sheldon, T. S., "Selenographical Region S. E. of Guericke," English Mechanic, V. 53, No. 1356-1360, 1891.

Shoemaker, E. M., "Ballistics of the Copernican System," Lunar and Planetary Exploration Colloquium. Proceedings, V. 2, No. 2, 1960, p. 7-21.

Shoemaker, E. M., "Interpretation of Lunar Craters," Physics and Astronomy of the Moon, Edited by Z. Kopal, Academic Press, 1961, p. 283-358.

Shoemaker, E. M., (See Gault, D. E., 1962)

Spencer, L. J., "Meteorites and the Craters on the Moon," Nature, V. 139, 1937, p. 655-657.

Spurr, J. E., "The Imbrian Plain Region of the Moon," Lancaster Press, 1944.

Spurr, J. E., "Geology Applied to Selenology," Science Printing Company, 1945.

Stewart, J. Q., (See Hacker, S. G., 1935)

Stewart, P. E., "Surface Exploration of the Moon," Spaceflight, V. 3, Mar. 1961, p. 34-48.

Strom, R. G., (See Palm, A., 1962)

Strom, R. G., and Palm, A., "Possible Origin of the Lunar Walled Plain Ptolemaeus," Nature, V. 199, No. 4898, 1963, p. 1052-1054.

Teifel, V. G., "Relationship of Color and Intensity on Details of the Lunar Surface," Astr. Cirk., Izdav. Bjuro. Astro. Soobshch. Akad. Nauk. SSSR, No. 194, 1958, p. 11-13. (Russian)

Thiersch, A., and Thiersch, H., "The Physiognomy of the Moon," Noerdlingen, 1879.

Thiersch, H., (See Thiersch, A., 1879)

Tombaugh, C., "Comparison of Lunar and Martian Features," Lunar and Planetary Exploration Colloquium. Proceedings, V. 1, No. 4, 1959, p. 38-41.

Tomkins, H. S., "The Igneous Origin of Some of the Lunar Formations," British Astronomical Society, V. 37, 1927, p. 161-181.

Tomkins, H. S., "Aspect of Lunar Surface," Royal Astronomical Society. Monthly Notices, V. 92, 1932, p. 557-562.

Tyler, W. C., and Copeland, J., "A Theoretical Model for the Lunar Surface," Abstract of Paper Presented at the 109th Meeting of the American Astronomical Society, Dec. 26-30, 1961, at Denver, Colorado, in Astronomical Journal, V. 67, No. 2, 1962, p. 109-124.

Urey, H. C., "The Origin of the Moon's Surface Features," Sky and Telescope, V. 15, No. 2, 1956.

Urey, H. C., "The Duration of Intense Bombardment Processes on the Moon," Astrophysical Journal, V. 132, 1960, p. 502.

Urey, H. C. (Chairman), "Lunar Physics and Topography," Lunar and Planetary Exploration Colloquium. Proceedings, V. 2, No. 3, 1961, p. 1-15.

Van Horn, H., (See Hapke, B., 1963)

Vandorn, W. G., "Origin of the Lunar Craters and Maria," Nature, V. 183, 1959, p. 737.

Viète, G., "Geologie und Mondoberfläche," Bergakademie (Bergakademie Freiberg, Zeitschrift Für Bergbau, Huttenwesen Und Verwandte Wissenschaften), V. 4, No. 12, 1952, p. 470-482.

Warner, B., "Rilles Near the Lunar Crater Plato," British Astronomical Association. Journal, V. 70, 1960, p. 299-300.

Warner, B., "Accretion and Erosion on the Surface of the Moon," Planetary and Space Science, V. 5, No. 4, 1961, p. 321-325.

Warner, B., "The Lunar Maria," Planetary and Space Science, V. 5, No. 4, 1961, p. 257-272.

Warner, B., "A Classification of the Profiles of Lunar Craters," British Astronomical Association. Journal, V. 71, 1961, p. 246.

Warner, B., "Inner Rings in Lunar Craters," British Astronomical Association. Journal, V. 71, 1961, p. 115.

Warner, B., "On the Lunar Grid System," British Astronomical Association. Journal, V. 71, 1961, p. 116.

Warner, B., "Lunar Maria," Planetary and Space Science, V. 5, 1961, p. 283-285.

Warner, B., "Lunar Rilles Near Jansen B.," Sky and Telescope, V. 22, No. 1, 1961, p. 346.

Watson, K., Murray, B. C., and Brown, H., "The Stability of Volatiles in the Solar System," *Icarus*, No. 4, Sept. 15, 1962.

Wilkins, P., "The Other Side of the Moon," *British Interplanetary Society. Journal*, V. 12, 1953, p. 1-5.

Wilkins, H. P., "The Lunar Crater Atlas," *Urania*, V. 38, 1953, p. 87-88. (Spanish)

Wilkins, H. P., "Lunar Observations," *Urania*, V. 39, 1954, p. 43-53. (Spanish)

Windsor, M. W., "Free Radicals as Cause of Volcanic Phenomena on the Moon," *Nature*, V. 184, 1959, p. 1556.

Windsor, M. W., "Volcanos on the Moon," *Nature Supplement*, V. 184, No. 20, 1959, p. 1556-1557.

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FRAMES

III. PLANETS

GENERAL

Ambartsumian, V. A., "On the Scattering of Light by Atmospheres of the Planets," Soviet Astronomy - A. J., V. 19, 1942.

Azmon, E., (See Ragle, J., 1963)

Baker, S. C., and Kelso, J. M., "Minature Movies of the Planets," Astronautics, V. 4, 1959, p. 26-28, 104, 106.

Behn, E. R., "Surface Exploration of the Planets," Army Engineering, V. 3, 1960, p. 16-18.

Bellier, B., (See Wlerick, G., 1962)

Brandt, J. C., and Chamberlain, J. W., "Density of Neutral Gases in a Planetary Exosphere," Physics of Fluids, V. 3, 1960, p. 485-486.

Callahan, F. P., "Planetary Orbit Chart," Applied Physics. Journal, V. 30, 1959, p. 444-445.

Carr, T. D., "A Corner Reflector Array for the Reception of Planetary Radio Radiations," British Astronomical Association. Journal, V. 70, 1960, p. 185-190.

Chamberlain, J. W., and Sobouti, Y., "Flourescent Scattering in Planetary Atmospheres, 1. Basic Theoretical Considerations," Astrophysical Journal, V. 135, No. 3, 1962, p. 925-937.

Chamberlain, J. W., (See Brandt, J. C., 1960)

Clapp, R. W., Owens, A. T., and Sax, R. L., "Planetary Landing and Observation Package," in Propulsion, Space Science and Space Exploration, Symposium on Ballistic Missile and Aerospace Technology, 6th, Los Angeles, V. 3, Aug. 1961, p. 341-363.

Clemence, G. M., "Planetary Distances According to General Relativity," Abstract of the Paper Presented at the 111th Meeting of the American Astronomical Society, Aug. 26-29, 1962, Yale University, New Haven, Conn., in Astronomical Journal, V. 67, No. 9, 1962, p. 571-590.

Clemence, G. M., "Planetary Distances According to General Relativity," *Astronomical Journal*, V. 67, No. 6, 1962, p. 379-381.

Devaucouleurs, G., "Report of Conference on Planetary Atmospheres," *American Geophysical Union. Transactions*, V. 42, 1961, p. 16.

Dollfus, A., "Polarization Studies of Planets," *The Solar System, V. 3, Planets and Satellites*, Edited by G. P. Kuiper and B. M. Middlehurst, University of Chicago Press, 1961, p. 213-248.

Drake, F. D., "Radio Emission from the Planets," *Physics Today*, V. 14.

Dupre, M., (See Wlerick, G., 1962)

Firsoff, V. A., "A Note on the Effective Greysphere Temperature and Effective Bolometric Albedo of Planetary Bodies," *British Astronomical Association. Journal*, V. 70, 1960, p. 131-134.

Goldstein, F. S., "The Infrared Reflectivity of a Planetary Atmosphere," *Astrophysical Journal*, V. 132, 1960, p. 473-481.

Greenfield, S. M. (Chairman), "Planetary Atmospheres," *Lunar and Planetary Exploration Colloquium. Proceedings*, V. 3, No. 1, 1961, p. 1 and 19-21.

Hall, F. F., "Planetary Antisolar-Point Radiance," *Astronomical Society of the Pacific. Publications*, V. 73, 1961, p. 229-230.

Herring, J., and Kyle, H. L., "Density in a Planetary Exosphere," *NASA TN D-1042*, 1961, 5 pp.

Heuer, K., "Men of Other Planets," *The Viking Press*, 1954, 160 pp.

Hope-Jones, E. F., "Planetary Engineering," *British Interplanetary Society. Journal*, V. 12, Jul. 1953, p. 155-159.

Huang, S., "The Limiting Sizes of the Habitable Planets," *NASA TN D-499*, 1960, 6 pp.

Isaacs, J. D., and Tyler, J. E., "On the Observation of Unresolved Surface Features of a Planet," *Astronomical Society of the Pacific. Publications*, V. 72, 1960, p. 159-166.

Kelso, J. M., (See Baker, S. C., 1959)

Kern, J. W., and Vestine, E. H., "Magnetic Fields of the Earth and Planets," *Rand Memorandum RM-3523-NASA*, 1962, 62 pp.

Kooy, J. J., "Astrodynamics and Planetary Research," *Astronautica Acta*, V. 8, 1962, p. 151-173.

Kozlovskaya, S. V., "The Internal Structure and Chemical Composition of the Major Planets," *Akademiya Nauk USSR, Doklady*, V. 108, No. 3, 1956, p. 409-412. (Russian)

Kuiper, G. P. (Editor), "The Atmospheres of the Earth and Planets," *University of Chicago Press*, 1952.

Kuiper, G. P., "The Formation of the Planets," *Royal Astronomical Society of Canada. Journal*, V. 50, 1956, p. 57-68, 105-121, and 158-176.

Kuiper, G. P. (Chairman), "Planetary Studies," *Lunar and Planetary Exploration Colloquium. Proceedings*, V. 2, No. 3, 1961, p. 17-41.

Kyle, H. L., (See Herring, J., 1961)

Lomnitz, C., "On Thermodynamics of Planets," *Royal Astronomical Society. Geophysical Journal*, V. 5, 1961, p. 157-161.

Love, C. G., "Cryogenic Tank Thermal Design for Planet Missions," *Institute of Aerospace Science, Paper 63-37*, 1963, 38 pp.

Mintz, Y., "The General Circulation of Planetary Atmospheres," *Lunar and Planetary Exploration Colloquium. Proceedings*, V. 3, No. 1, 1962, p. 1-19.

Opik, E. J., and Singer, S. F., "Distribution of Density in a Planetary Exosphere," *Physics of Fluids*, V. 2, 1959, p. 653-655.

Opik, E. J., and Singer, S. F., "Distribution of Density in a Planetary Exosphere II," *Physics of Fluids*, V. 4, No. 2, 1961, p. 221-233.

Owens, A. T., (See Clapp, R. W., 1961)

Porter, J. G., "The Satellites of the Planets," *British Astronomical Association. Journal*, V. 70, 1960, p. 33-59.

Powers, A. J., "A Theory of Gravitation and Planetary Evolution," *American Interplanetary Society. Bulletin*, V. 2, No. 18, 1932, p. 1-6.

Ragel, J., and Azmon, E., "Proposal... The Internal Constitution of the Inner Planets and Their Satellites," *Northrop Space Laboratories Report* 63-48, Mar. 1963.

Ramsey, W. H., "The Constitution of the Terrestrial Planets," *Royal Astronomical Society. Monthly Notices*, V. 108, 1948, p. 406-413.

Ringwood, A. E., "On the Chemical Evolution and Densities of the Planets," *Geochimica et Cosmochimica Acta*, V. 15, 1959, p. 257.

Ritter, C. L., and Strughold, H., "Seeing Planets from Space," *Astronautics and Aerospace Engineering*, Jul. 1963, p. 31-35.

Rosch, J., (See Wlerick, G., 1962)

Sax, R. L., (See Clapp, R. W., 1961)

Singer, S. F., (See Opik, E. J., 1959)

Singer, S. F., (See Opik, E. J., 1961)

Smith, R. A., "Landing on Airless Planets," *British Interplanetary Society. Journal*, V. 12, Jul. 1953, p. 149-155.

Sobouti, Y., (See Chamberlain, J. W., 1962)

Sobouti, Y., "Fluorescent Scattering in Planetary Atmospheres, 2. Coupling Among Transitions," *Astrophysical Journal*, V. 135, No. 3, 1962, p. 938-954.

- Stephenson, G. B., "Minor Planets," *Spaceflight*, V. 2, Apr. 1959, p. 59-60.
- Strughold, H., (See Ritter, O. L., 1963)
- Struve, O., "Planets with Rings," *Sky and Telescope*, V. 20, 1960, p. 20-23.
- Tyler, J. E., (See Isaacs, J. D., 1960)
- Urey, H. C., "The Planets," Yale University Press, 1952.
- Urey, H. C., and Brewer, A. W., "Flourescence in Planetary Atmospheres," Royal Society of London. Proceedings, Series A, V. 241, 1957, p. 37.
- Urey, H. C., "The Atmospheres of the Planets," *Handbuch der Physik*, V. 52, Springer-Verlag, Berlin, 1959, 363 pp.
- Van de Hulst, H. C., "The Atmospheres of the Earth and the Planets," Edited by Kuiper, University of Chicago Press, 1952.
- Vestine, E. N., (See Kern, J. W., 1962)
- Whipple, F. L., "Earth, Moon and Planets," Grosset and Dunlap, 1958, 293 pp.
- Wilson, D. K., and Wuensch, R., "Sun Tracker with Moon and Planet Modifications," *Advances in the Astronautical Sciences*, V. 7, Plenum Press, 1961, 454 pp.
- Wlerick, G., Rosch, J., Dupre, M., and Bellier, B., "Electronic Photography of the Planets and Its Photometric Application," *Advances in Electronics and Electron Physics*, V. XVI, Symposium on Photoelectronic Image Devices, 2nd, Proceedings, Imperial College, London, September 7-8, 1961, Edited by L. Marton, J. D. McGee, W. L. Wilcock, and L. Mandel, Academic Press, 1962, p. 371-382.
- Wuensch, R., (See Wilson, D. K., 1961)

JUPITER

Anonymous, "The Planets - Jupiter," Sky and Telescope, V. 21, 1961, p. 272-274.

Anonymous, "Apparition of Jupiter in 1961," Jupiter Section Report, British Astronomical Association. Journal, V. 73, No. 3, 1962, p. 106-108.

Anonymous, "Apparition of Jupiter in 1961," Jupiter Section Report, British Astronomical Association. Journal, V. 73, No. 3, 1963, p. 106-108.

Averill, L., (See Herrick, S., 1961)

Averill, L., (See Herrick, S., 1963)

Barber, D., and Moule, G. L., "Observations of 610 Megacycles/Second of the Radiation from Jupiter," Nature, V. 198, No. 4884, 1963, p. 947-948.

Barrow, C. H., "Magnetic Field of Jupiter," Nature, V. 188, 1960, p. 924-925.

Barrow, C. H., "Decameter-Wave Observations of Jupiter in 1961," Abstract of Paper Presented at the 109th Meeting of the American Astronomical Society, Dec. 26-30, 1961, at Denver, Colorado, in Astronomical Journal, V. 67, No. 2, 1962, p. 109-124.

Barrow, C. H., "-38 MC/S Radiation from Jupiter," Nature, V. 197, No. 4867, 1963, P. 580.

Barrow, C. H., and Hyde, F. W., "An Experiment to Study the Relationship between Radio Noise from Jupiter and Solar Activity," British Astronomical Association. Journal, V. 73, No. 8, 1963, p. 327-328.

Barrow, C. H., "A Brief Survey of the Decametre-Wave Radiation from Jupiter," British Astronomical Association Journal, V. 73, No. 1, 1963, p. 42-48.

Bekefi, G., (See Hirshfield, J. L., 1963)

Bollhagen, H., (See Smith, A. G., 1960)

Bollhagen, H., (See Smith, A. G., 1963)

Borch, M. C., (See Gledhill, J. A., 1963)

Brown, G. W., (See Smith, A. G., 1963)

Carr, T. D., (See Smith, A. G., 1960)

Carr, T. D., Smith, A. G., Higgins, C. S., Bollhagen, H., and May, J., "Statistical Spectrum of Jupiter at Decameter Wavelengths," Abstract of the Paper Presented at the 111th Meeting of the American Astronomical Society, Aug. 26-29, 1962, Yale University, New Haven, Connecticut, in *Astronomical Journal*, V. 67, No. 9, 1962, p. 571-590.

Carr, T. D., (See Smith, A. G., 1963)

Carr, T. D., (See Smith, A. G., 1963)

Castles, M. P., (See Sherrill, W. M., 1963)

Chang, B. J., and Davis, L., "Synchrotron Radiation as the Source of the Polarized Decameter Radiation from Jupiter," Abstract of Paper Presented at the 109th Meeting of the American Astronomical Society, Dec. 26-30, 1961, at Denver, Colorado, in *Astronomical Journal*, V. 67, No. 2, 1962, p. 120-124.

Chang, D. B., "Amplified Whistlers as the Sources of Jupiter's Sporadic Decameter Radiation," *Astrophysical Journal*, V. 138, No. 4, 1963, p. 1231-1241.

Chatterton, N., (See Smith, A. G., 1960)

Corliss, C. H., (See Kiess, C. C., 1960)

Davis, L., (See Chang, B. J., 1962)

Douglas, J. N., "Presence and Correlation of Fine Structures in Jovian Decametric Radiation," *Nature*, V. 192, No. 4804, 1961, p. 741.

Douglas, J. N., "Statistical Analysis of Jupiter's Decameter Radiation 1950-1961," Abstract of the Paper Presented at the 111th Meeting of the American Astronomical Society, Aug. 26-29, 1962, Yale University, New Haven, Connecticut, in *Astronomical Journal*, V. 67, No. 9, 1962, p. 571-590.

Douglas, J. N., (See Smith, H. J., 1962)

Douglas, J. N., and Smith, H. J., "Decametric Radiation from Jupiter. I. Synoptic Observations 1957-1961," *Astronomical Journal*, V. 68, No. 3, 1963, p. 163-180.

Douglas, J. N., and Smith, H. J., "Change in Rotation Period of Jupiter's Decameter Radio Sources," *Nature*, V. 199, No. 4898, 1963, p. 1080-1081.

Dowden, R. L., "Polarization Measurements of Jupiter Radio Bursts at 10.1 MC/S," Australian Journal of Physics, V. 16, No. 3, 1963, p. 398-410.

Ellis, G. A., "The Radio Emission from Jupiter and the Density of Jovian Exosphere," Australian Journal of Physics, V. 16, No. 1, 1963, p. 74-81.

Ellis, G. A., And McCulloch, R. L., "The Decameter Radio Emissions of Jupiter," Australian Journal of Physics, V. 16, No. 3, 1963, p. 380-397.

Ellis, G. A., and McCulloch, P. M., "Decameter Radio Emissions of Jupiter," Nature, V. 198, No. 4877, 1963, p. 275.

Field, G. B., "The Source of Radiation from Jupiter at Decimeter Wavelengths - 2. Cyclotron Radiation by Trapped Electrons," Journal of Geophysical Research, V. 65, 1960, p. 1661-1671.

Field, G. B., "Can the Jupiter Emission be Cyclotron Radiation," Astronomical Journal, V. 66, 1961, p. 283.

Field, G. B., "The Source of Radiation from Jupiter at Decimeter Wavelengths - 3. Time Dependence of Cyclotron Radiation," Journal of Geophysical Research, V. 66, 1961, p. 1395-1403.

Forward, R. L., "Jupiter - Probe Target After Mars," Missiles and Rockets, V. 9, No. 23, 1961, p. 22-23, 26.

Francis, M. P., (See Herrick, S., 1963)

Gary, B. L., (See Miller, A. C., 1962)

Gary, B., "An Investigation of Jupiter's 1400 MC Free Radiation," Astronomical Journal, V. 68, No. 8, 1963, p. 568-572.

Gehrels, T., "The Polarization of the Sunlit Sky and of the Poles of Jupiter," Abstract of Paper Presented at the 110th Meeting of the American Astronomical Society, April 1-4, 1962, at Cambridge, Massachusetts, in Astronomical Journal, V. 67, No. 5, 1962, p. 267-286.

Gledhill, J. A., Gruber, G. M., and Borch, M. C., "Radio Observations of Jupiter During 1962," Nature, V. 196, No. 4866, 1963, p. 474.

Gower, J. R., "Radiation from Jupiter at 178 MCs " Nature, V. 199, No. 4900, 1963, p. 1273.

Gruber, G. M., (See Gledhill, J. A., 1963)

Herrick, S., Averill, L., and Montgomery, T. D., "1961 Ephemerides of Jupiter's Ninth and Twelfth Satellites," Astronomical Society of the Pacific. Publications, V. 73, 1961, p. 168-169.

Herrick, S., Averill, L., and Francis, M. P., "1963 Ephemerides of Jupiter's Ninth and Twelfth Satellites," Astronomical Society of the Pacific. Publications, V. 75, No. 444, 1963, p. 291.

Hide, R., "Origin of Jupiter's Great Red Spot," Nature, V. 190, 1961, p. 895-896.

Higgins, C. S., (See Carr, T. D., 1962)

Higgins, C. S., (See Slee, O. B., 1963)

Hirshfield, J. L., and Bekefi, G., "Decameter Radiation from Jupiter," Nature, V. 198, No. 4875, 1963, p. 20-22.

Hyde, F. W., (See Barrow, C. H., 1963)

Kiess, C. C., Corliss, C. H., and Kiess, H. K., "High-Dispersion Spectra of Jupiter," Astrophysical Journal, V. 132, 1960, p. 221-231.

Kiess, H. K., (See Kiess, C. C., 1960)

Lasker, B. M., "Wet Adiabatic Model Atmospheres for Jupiter," Astrophysical Journal, V. 138, No. 3, 1963, p. 709-719.

May, J., (See Carr, T. D., 1962)

McClain, E. F., Nichols, J. H., and Waak, J. A., "Investigation of Variation in the Decimeter-Wave Emission from Jupiter," Astronomical Journal, V. 67, No. 10, 1962, p. 724-727.

McCulloch, R. L., (See Ellis, G. A., 1963)

McCulloch, F. M., (See Ellis, G. A., 1963)

Miller, A. C., and Cary, B. L., "Measurements of the Decimeter Radiation from Jupiter," Astronomical Journal, V. 67, No. 10, 1962, p. 727-731.

Mock, W., (See Smith, A. G., 1963)

Montgomery, T. D., (See Herrick, S., 1961)

Moule, G. L., (See Barber, D., 1963)

Munch, G., (See Spinrad, H., 1962)

Nichols, J. H., (See McClain, E. F., 1962)

Peek, B. M., "On the Life and Continuity of Jupiter's South Tropical Disturbance," British Astronomical Association. Journal, V. 73, No. 3, 1962, p. 109-112.

Rice, F. O., "The Chemistry of Jupiter," Scientific American, V. 194, June 1956, p. 119-120, 122, 124, 126, 128.

Roberts, M. S., "Correction of Jupiter Decimeter Radiation with Solar Activity," Abstract of Paper Presented at the 110th Meeting of the American Astronomical Society, April 1-4, 1962, at Cambridge, Massachusetts, in Astronomical Journal, V. 67, No. 5, 1962, p. 267-286.

Sherrill, W. M., and Castles, M. P., "Survey of the Polarization of Jovian Radiation at Decameter Wavelengths," Astrophysical Journal, V. 138, No. 3, 1963, p. 587-598.

Six, N. F., (See Smith, A. G., 1960)

Six, N. F., (See Smith, A. G., 1963)

Six, N. F., (See Smith, A. G., 1963)

Slee, O. B., and Higgins, C. S., "Long Baseline Interferometry of Jovian Decametric Radio Bursts," Nature, V. 197, No. 4869, 1963, p. 781-783.

Smith, A. G., Carr, T. D., Bollhagen, H., Chatterton, N., and Six, N. F., "Ionospheric Modification of the Radio Emission from Jupiter," Nature, V. 187, 1960, p. 568-570.

Smith, A. G., "Radio Spectrum of Jupiter," Science, V. 134, 1961, p. 587-595.

Smith, A. G., (See Carr, T. D., 1962)

Smith, A. G., Six, N. F., Carr, T. D., and Brown, G. W., "Occultation Theory of Jovian Radio Outbursts," Nature, V. 199, No. 4890, 1963, p. 267-268.

Smith, A. G., Carr, T. D., Six, N. F., Mock, W., and Bollhagen, H., "Results of Decameter-Wavelength Observations of the 1961 Apparition of Jupiter," Abstract of Paper Presented at the 113th Meeting of the American Astronomical Society, 17-20 April 1963, at the Kitt Peak National Observatory, University of Arizona, Tucson, Arizona, in Astronomical Journal, V. 68, No. 5, 1963, p. 271-301.

Smith, H. J., "Longitude Effects in Jovian Decametric Radio Emission," Abstract of Paper Presented at the 111th Meeting of the American Astronomical Society, Aug. 26-29, 1962, Yale University, New Haven, Connecticut, in Astronomical Journal, V. 67, No. 9, 1962, p. 571-590.

Smith, H. J., and Douglas, J. N., "Fine-Structure in Jovian Decameter Radio Noise," Abstract of Paper Presented at the 109th Meeting of the American Astronomical Society, Dec. 26-30, 1961, at Denver, Colorado, in Astronomical Journal, V. 67, No. 2, 1962, p. 109-124.

Smith, H. J., (See Douglas, J. N., 1963)

Smith, H. J. (See Douglas, J. N., 1963)

Spinrad, H., Munch, G., and Trafton, L. M., "Recent Spectroscopic Investigations of Jupiter and Saturn," Abstract of Paper Presented at the 111th Meeting of the American Astronomical Society, Aug. 26-29, 1962, Yale University, New Haven, Connecticut, in Astronomical Journal, V. 67, No. 9, 1962, p. 571-590.

Strom, S. E., and Strom, K. M., "A Possible Mechanism for Jovian Decameter Bursts," Abstract of Paper Presented at the 109th Meeting of the American Astronomical Society, Dec. 26-30, 1961, at Denver, Colorado, in Astronomical Journal, V. 67, No. 2, 1962, p. 109-124.

Strom, K. M., (See Strom, S. E., 1962)

Taylor, G. E., "The Apparent Shape of Jupiter, Saturn, Saturn's Rings and Circular Satellite Orbits," British Astronomical Association. Journal, V. 71, 1961, p. 396-403.

Trafton, L. M., (See Spinrad, H., 1962)

Waak, J. A., (See McClain, E. F., 1962)

Zabriskie, F. R., "Hydrogen Content of Jupiter's Atmosphere," Astronomical Journal, V. 67, No. 3, 1962, p. 168-170.

MARS

Anonymous, "Martian Atmosphere Restudied," Technical News Bulletin, National Bureau of Standards, V. 42, Mar. 1958, p. 48-52.

Anonymous, "Upper Atmosphere Physics, Mars," California Institute of Technology, Jet Propulsion Laboratory, Physics Research Summary 36-7, V. 2, Mar. 1961, p. 1-4.

Anonymous, "Mars in 1960-1961," Mars Section Report, British Astronomical Association. Journal, V. 73, No. 1, 1963, p. 23-26, and Plates 1, 2, 3, and 4.

Arking, A., and Rasool, S. I., "Ozone Heating in the Atmosphere of Mars," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in American Geophysical Union. Transactions, V. 43, No. 4, Dec. 1962.

Atchison, M., "A Major Change on Mars. Developments in the Region of Aethiopis, 1958-1963," British Astronomical Association. Journal, V. 73, No. 7, 1963, p. 265-269.

Atchison, M., "Visual Photometry of the North Polar Cap Fringe of Mars," British Astronomical Association. Journal, V. 74, No. 1, 1964, p. 25-27.

Barabashov, N. P., and Garazha, V. I., "Some Remarks on the Dust and Haze Formations on Mars," Soviet Astronomy - AJ, V. 4, 1960, p. 473-479.

Barabashov, N. P., and Koval, I. K., "Results of Studies of Contrast on Mars," Soviet Astronomy - AJ, V. 4, 1960, p. 283-287.

Beers, L. S., (See Cohen, A. D., 1963)

Bono, P., "A Conceptual Design for a Manned Mars Vehicle," Advances in the Astronautical Sciences, V. 7, Plenum Press, 1961, p. 25-42.

Boobar, M. G., and Foster, R. M., "Some Aerothermodynamic Considerations for Martian Entry and Heat Shield Design," Institute of Aerospace Science, Paper 62-163, 1962, 19 pp.

Briggs, M. H., "New Evidence of Martian Life," Spaceflight, V. 2, 1960, p. 237-238.

Briggs, M. H., and Revill, J. P., "The Chemistry of Mars. I. The Atmosphere," British Interplanetary Society. Journal, V. 17, No. 11, 1960, p. 391-393.

Briggs, M. H., and Revill, J. P., "The Chemistry of Mars. II. The Surface," British Interplanetary Society. Journal, V. 17, 1960, p. 459-461.

Burch, D. E., (See Shaw, J. H., 1957)

Burgess, E., and Cross, C. A., "The Martian Probe," British Interplanetary Society. Journal, V. 12, Mar. 1953, p. 72-74.

Cohen, A. D., and Beers, L. S., "What Kind of Upper-Stage Propulsion for Mars Missions," Astronautics and Aerospace Engineering, Aug. 1963, p. 98-105.

Collinson, E. H., "The Apparition of Mars 1958-1959," British Astronomical Association. Journal, V. 70, 1960, p. 252-254.

Corliss, C. H., (See Kiess, C. C., 1957)

Corliss, C. H., (See Kiess, C. C., 1962)

Corliss, E. R., (See Kiess, C. C., 1957)

Coulson, K. L., and Lotman, M., "Molecular Scattering of Solar Radiation in the Atmosphere of Mars," Journal of Geophysical Research, V. 68, No. 20, 1963, p. 5681-5687.

Cross, C. A., (See Burgess, E., 1953)

Cummins, H. Z., (See Shaw, J. H., 1957)

Danilov, A. D., "Model of the Ionospheres of Venus and Mars," Geomagnetism and Aeronomy, USSR, V. 1, No. 2, 1961, 6 pp.

Davis, G., (See Siegel, S. M., 1963)

DeVaucouleurs, G., "Physics of the Planet Mars," Astronomical Society of the Pacific. Leaflet 276, 1952.

DeVaucouleurs, G., "Physics of the Planet Mars," MacMillan, 1954.

DeVaucouleurs, G., "Remarks on Mars and Venus," The Exploration of Space, Edited by R. Jastrow, MacMillan, 1960, 160 pp.

Dollfus, A., "Polarization Study of the Light Reflected by Clouds and the Atmosphere of the Planet Mars," Academie des Sciences. Comptes Rendus, V. 227, 1948, p. 383.

Dollfus, A., "The Polarization of Light from the Different Regions of the Surface of Mars and its Interpretation," Academie des Sciences. Comptes Rendus, V. 223, 1951, p. 467.

- Dollfus, A., "Photometric Properties of the Desert Regions on the Planet Mars," *Academie des Sciences. Comptes Rendus*, V. 244, 1957, p. 62.
- Fielder, G., "On the Topography of Mars," *Astronomical Society of the Pacific. Publications*, Feb. 1963, p. 75-76.
- Firsoff, V. A., (See Heath, A. W., 1960)
- Foster, R. M., (See Bonbar, M. G., 1962)
- French, H., "Some Notes on the Origin of the Colour of the Martian Deserts," *British Astronomical Association. Journal*, V. 70, 1960, p. 136-138.
- Fulton, J. D., "Terrestrial Microorganisms Under Simulated Martian Conditions," *Physics and Medicine of the Atmosphere and Space*, Edited by O. O. Benson and H. Strughold, John Wiley and Sons, 1956.
- Garazha, V. I., (See Barabashov, N. P., 1960)
- Gifford, F., "The Surface Temperature Climate of Mars," *Astrophysical Journal*, V. 123, 1956, p. 154-161.
- Giunaro, C., (See Siegal, S. M., 1963)
- Goody, R. M., (See Grandjean, J., 1955)
- Goody, R. M., "The Atmosphere of Mars," *Weather*, V. 12, 1957, p. 3-15.
- Goody, R. M., "The Atmosphere of Mars," *British Interplanetary Society. Journal*, V. 16, Apr.-Jun. 1957, p. 69-83.
- Grandjean, J., and Goody, R. M., "The Concentration of Carbon Dioxide in the Atmosphere of Mars," *Astrophysical Journal*, V. 121, 1955, p. 548.
- Gustavson, J., "The Red Planet," *Jet Propulsion*, V. 27, No. 6, 1957, p. 706-708.
- Halpern, L. A., (See Siegel, S. M., 1963)
- Harder, J. A., (See Weble, W. A., 1961)
- Heath, A. W., Robinson, J. H., and Firsoff, V. A., "Mars Through Color Filters, 1958," *British Astronomical Association. Journal*, V. 70, 1960, p. 270-272.
- Hess, S. H., "Some Aspects of the Meteorology of Mars," *Journal of Meteorology*, V. 7, 1950, p. 1-13.

Hess, S. H., "Blue Haze and the Vertical Structure of the Martian Atmosphere," *Astrophysical Journal*, V. 127, 1958, p. 743.

Kampffert, W., "A Trip to Mars," *Fourm*, Oct. 1930.

Karrer, S., (See Kiess, C. C., 1960)

Karrer, S., (See Kiess, C. C., 1963)

Kiess, C. C., Corliss, C. H., Kiess, H. K., and Corliss, E. R., "High-Dispersion Spectra of Mars," *Astrophysical Journal*, V. 125, Nov. 1957, p. 579-584.

Kiess, C. C., Karrer, S., and Kiess, H. K., "A New Interpretation of Martian Phenomena," *Astronomical Society of the Pacific. Publications*, V. 72, 1960, p. 256-267.

Kiess, C. C., Corliss, C. H., and Kiess, H. K., "Evidence for Nitrogen in the Martian Atmosphere," Abstract of Paper Presented at the 111th Meeting of the American Astronomical Society, Aug. 26-29, 1962, Yale University, New Haven, Connecticut, in *Astronomical Journal*, V. 67, No. 9, 1962, p. 571-590.

Kiess, C. C., Karrer, S., and Kiess, H. K., "Oxides of Nitrogen in the Martian Atmosphere," *Astronomical Society of the Pacific. Publications*, Feb. 1963, p. 50-60.

Kiess, H. K., (See Kiess, C. C., 1957)

Kiess, H. K., (See Kiess, C. C., 1960)

Kiess, H. K., (See Kiess, C. C. 1962)

Kiess, H. K., (See Kiess, C. C., 1963)

Knip, G., and Zola, C. I., "Three-Dimensional Sphere-of-Influence Analysis of Interplanetary Trajectories to Mars," NASA TN D-1199, May 1962, 68 pp.

Koval, I. K., (See Barabashov, N. P., 1960)

Kuiper, G. P., "Visual Observations of Mars," *Astrophysical Journal*, V. 125, 1957, p. 307.

Kurchakov, A. V., "Optical Properties of the Atmosphere and Surface of the Planet Mars," *ARS Journal*, V. 32, No. 3, 1962, p. 490-495.

Lebedinskii, A. I., and Salova, G. I., "On the Quantity of Free Water on Mars," *Astronomicheskii Zhurnal*, USSR, V. 39, No. 3, 1962, p. 494-505, Translated by OTS.

Lotman, H., (See Coulson, K. L., 1963)

McLaughlin, D. B., "Volcanic-Aeolian Hypothesis of Martian Features,"
Astronomical Society of the Pacific. Publications, V. 68, 1956, p. 221.

Moore, P. A., "The Planet Mars," British Interplanetary Society.
Journal, V. 14, Mar.-Apr. 1955, p. 89-97.

Nelson, E., "There is Life on Mars," The Citadel Press, 1956, 152 pp.

Ohring, G., "A Theoretical Estimate of the Average Vertical Distribution
of Temperature in the Martian Atmosphere," Icarus, V. 1, No. 4,
1963, p. 328-333.

Opik, E. J., "The Atmosphere and Haze of Mars," Journal of Geophysical
Research, V. 65, 1960, p. 3057-3065.

Oyama, V. I., "Use of Gas Chromatography for the Detection of Life on
Mars," Nature, V. 200, No. 4911, 1963, p. 1058-1059.

Peterson, V. L., "Motions of a Short 10 Degree Blunted Cone Entering
a Martian Atmosphere at Arbitrary Angles of Attack and Arbitrary
Pitching Rates," NASA TN D-1326, May 1962, 40 pp.

Pugmire, T. K., "Experimental Planetary Entry Research for Mars and
Venus - 1962," General Electric, Missile and Space Division Report,
R-62-SD-84, 1962, 204 pp.

Randolph, J. R., "The Occupation of Mars," Army Ordnance, Mar. -
Apr. 1947.

Randolph, J. R., "The Climate of Mars," American Rocket Society.
Journal, V. 17, No. 70, 1947, p. 16-19.

Rasool, S. I., (See Arkins, A., 1962)

Rea, D. G., "Evidence for Life on Mars," Nature, V. 200, No. 4902,
1963, p. 114-116.

Renwick, G., (See Siegel, S. M., 1963)

Revill, J. P., (See Briggs, M. H., 1960)

Revill, J. P., (See Briggs, M. H., 1960)

Richardson, R. S., "Exploring Mars," McGraw-Hill, 1954.

Roberts, T. L., "Studies with a Simulated Martian Environment,"
Astronautical Sciences Journal, V. 10, No. 3, 1963, p. 63-74.

- Robinson, J. H., (See Heath, A. W., 1960)
- Ryan, C. (Editor), "Conquest of Mars," Viking Press, 1953.
- Sagan, C., "The Abundance of Water Vapor on Mars," Astrophysical Journal, V. 66, 1961, p. 521.
- Sagan, C., "Is the Martian Blue Haze Produced by Solar Protons," Rand Corporation Report RM-2832-JPL, 1961, 9 pp.
- Sagan, C., "The Abundance of Water Vapor on Mars," Astronomical Journal, V. 66, 1961, p. 52.
- Sagan, C., "Is the Martian Blue Haze Produced by Solar Protons," Icarus, V. 1, No. 1, 1962, p. 70-74.
- Sagan, C., "Is the Martian Blue Haze Produced by Solar Protons," Abstract of Paper Presented at the 109th Meeting of the American Astronomical Society, Dec. 26-30, 1961, at Denver, Colorado, in Astronomical Journal, V. 67, No. 2, 1962, p. 109-124.
- Salova, G. I., (See Lebedinskii, A. I., 1962)
- Schilling, G. F., "Extreme Model Atmospheres of Mars," Rand Corporation Report RM-2728-JPL, 1961, 44 pp.
- Schilling, G. F., "A Note on the Atmosphere of Mars," Journal of Geophysical Research, V. 67, No. 3, 1962, p. 1170-1172.
- Schilling, G. F., "A Note on the Upper Atmosphere of Mars," Journal of Geophysical Research, V. 68, No. 16, 1963, p. 4875-4876.
- Schmidt, I., "Visual Problems in Observing the Planet Mars," Lunar and Planetary Exploration Colloquium. Proceedings, V. 1, No. 6, 1959, p. 19-22.
- Sharonov, V. V., "A Lithological Interpretation of the Photometric and Colorimetric Studies of Mars," Soviet Astronomy - AJ, V. 5, 1961, p. 199-202.
- Shaw, J. H., Burch, D. E., and Cummins, H. Z., "Near Infrared Spectrum of Mars," Ohio State University Research Foundation, AFCRC-TN-58-203, AF 19(604)-1003, 1957, 17 pp., AD-146791.
- Shaw, J. H., "Natural Environment of the Planet Mars," WADC-Phase Technical Note 847-1, AF 33(616)-5914, 1959, 50 pp., AD-242175.
- Siegel, S. M., Halpern, L. A., Giumaro, C., Renwick, G., and Davis, G., "Martian Biology - The Experimentalists Approach," Nature, V. 197, No. 4865, 1963, p. 329-331.

Sinton, W. M., (See Strong, J., 1956)

Sinton, W. M., "Spectroscopic Evidence for Vegetation on Mars,"
Astrophysical Journal, V. 126, 1957, p. 231-239.

Sinton, W. M., "Spectroscopic Evidence of Vegetation on Mars,"
Astronomical Society of the Pacific. Publications, V. 70, 1958,
p. 50.

Sinton, W. M., and Strong, J., "Radiometric Observations of Mars,"
Astrophysical Journal, V. 131, 1960, p. 459-469.

Sinton, W. M., "An Upper Limit to the Concentration of NO_2 and N_2O_4
in the Martian Atmosphere," Astronomical Society of the Pacific.
Publications, V. 73, 1961, p. 125-128.

Slatter, A. E., "The Volcanic Theory of Martian Green Areas,"
British Interplanetary Society. Journal, V. 14, Nov.-Dec. 1955,
p. 319-323.

Sobouti, Y., "Flourescent Scattering in Planetary Atmospheres. III
Formation of Lyman-Birge-Hopfield Bands of N_2 in the Martian
Atmosphere," Astrophysical Journal, V. 138, No. 3, 1963, p. 720-760.

Spence, W. N., "On the Adequacy of ICBM Guidance Capability for a
Mars Launch," ARS Preprint, 1174-60, May 1960, 20 pp.

Spinrad, H., "The NO_2 Content of the Martian Atmosphere," Astronomical
Society of the Pacific. Publications, V. 75, No. 443, 1963, p. 190-191.

Strong, J., and Sinton, W. M., "Radiometry of Mars and Venus," Science,
V. 123, 1956, p. 676.

Strong, J., (See Sinton, W. M., 1960)

Strughold, H., "Life on Mars in View of Physiological Principles,"
CADO Technical Data Digest, V. 16, Nov. 1951.

Tombaugh, C. W., "Comparison of Lunar and Martian Features," Lunar
and Planetary Exploration Colloquium. Proceedings, V. 1, No. 4,
1959, p. 28-41

Tombaugh, C. W., "Mars - A World for Exploration," Astronautics,
V. 4, Jan. 1959, p. 30-31, 86-93.

Tombaugh, C. W., "A Reply on Mars Satellites," Astronautics, V. 4,
Dec. 1959, p. 39.

Tombaugh, C. W., "Evidence of Faulting in the Crust of Mars, Part I - Grabens," Abstract of Paper Presented at the 114th Meeting of the American Astronomical Society, 22-24 July 1963, in Astronomical Journal, V. 68, No. 8, 1963, p. 533-547.

Von Braun, W., "The Mars Project," University of Illinois Press, Urbana, 1954, 153 pp.

Weble, W. A., and Harder, J. A., "Considerations Affecting the Design of a Mars Probe," Advances in the Astronautical Sciences, V. 7, Plenum Press, 1961, p. 316-324.

Wilson, A. G., "The Problem of Martian Blue Haze," Lunar and Planetary Exploration Colloquium. Proceedings, V. 1, No. 4, 1959, p. 35-37.

Wooley, R. R., "Monochromatic Magnitudes of Mars in 1952," Royal Astronomical Society. Monthly Notices, V. 113, 1953, p. 521-525.

Yanow, G., "A Study of the Martian Upper Atmosphere and Ionosphere," Douglas Aircraft Engineering Paper No. 974, 1961, 37 pp.

Yanow, G., "A Study of the Martian Upper Atmosphere and Ionosphere," Astronautical Sciences. Journal, V. 8, 1961, p. 103-109.

Zola, C. I., (See Knip, G., 1962)

MERCURY, NEPTUNE, PLUTO, AND URANUS

Anonymous, "Transit of Mercury, November 7, 1960," British Astronomical Association. Journal, V. 71, 1961, p. 238.

Barrett, A. H., (See Howard, W. E., 1961)

DeVaucouleurs, G., "Transit of Mercury Observed at Austin, Texas," Astronomical Journal, V. 66, 1961, p. 36.

Field, G. B., "Atmosphere of Mercury," Abstract of Paper Presented at the 111th Meeting of the American Astronomical Society, Aug. 26-29, 1962, Yale University, New Haven, Connecticut, in Astronomical Journal, V. 67, No. 9, 1962, p. 571-590.

Grosser, M., "The Discovery of Neptune," Harvard University, Cambridge, 1962.

Haddock, F. T., (See Howard, W. E., 1961)

Howard, W. E., Barrett, A. H., and Haddock, F. T., "The Measurement of Microwave Radiation from the Planet Mercury," Astronomical Journal, V. 66, 1961, p. 287.

Kozyrev, N., "The Atmosphere of Mercury," British Astronomical Association. Journal, V. 73, No. 8, 1963, p. 345-346.

Moore, P. A., "Mercury, The Barren Planet," Journal of Astronautics, V. 2, 1955, p. 145-148.

Porter, W. S., "The Constitutions of Uranus and Neptune," Astronomical Journal, V. 66, 1961, p. 243-245.

Sandner, W., "The Planet Mercury," Faber and Faber, London, 1963, 94 pp.

Spinrad, H., "Pressure-Induced Dipole Lines of Molecular Hydrogen in the Spectra of Uranus and Neptune," Astrophysical Journal, V. 138, No. 4, 1963, p. 1242-1245.

Steavenson, W. H., "The Satellites of Uranus," British Astronomical Association. Journal, V. 74, No. 2, 1964, p. 54-59.

Steffey, P. C., "1960 Transit of Mercury - Time of Contact - III," Astronomical Society of the Pacific. Publications, V. 73, 1961, p. 167-168.

Van Biesbroeck, G., "Notes and Observations - The Planet Pluto,"
Astronomical Journal, V. 68, No. 9, 1963, p. 738.

Vetterlein, J. C., "The Phase of Mercury," British Astronomical
Association. Journal, V. 71, 1961, p. 156.

Walker, J. G., "The Thermal Budget of the Planet Mercury," Astrophysical
Journal, V. 133, No. 1, 1961, p. 274-280.

SATURN

Alexander, A. F., "The Planet Saturn, A History of Observations, Theory, and Discovery," MacMillan Company, 1962, 474 pp.

Anonymous, "Saturn in 1959," Saturn Section Report, British Astronomical Association. Journal, V. 71, 1961, p. 105.

Anonymous, "Saturn in 1960," Saturn Section Report, British Astronomical Association. Journal, V. 71, 1961, p. 375-379.

Anonymous, "Saturn in 1961," Saturn Section Report, British Astronomical Association. Journal, V. 73, No. 2, 1963, p. 62-64.

Anonymous, "Saturn in 1962," Saturn Section Report, British Astronomical Association. Journal, V. 73, No. 8, 1963, p. 335-338.

Arnold, C. B., (See Cook, J. J., 1960)

Barr, M. E., (See Cook, J. J., 1960)

Bobrov, M. S., "Theoretical Phase Curves of the Shadow Effect on Saturn's Rings. I. Derivation of Pertinent Formulas," Soviet Astronomy - AJ, V. 4, 1960, p. 288-297.

Cook, J. J., Cross, L. G., Barr, M. E., and Arnold, C. B., "Radio Detection of the Planet Saturn," Nature, V. 188, 1960, p. 393-394.

Cragg, T. A., "Rotation of Saturn," Astronomical Society of the Pacific. Publications, V. 73, No. 434, 1961, p. 318-322.

Cross, L. G., (See Cook, J. J., 1960)

Robinson, L. J., "Observations of the Rotation of Saturn," Astronomical Society of the Pacific. Publications, V. 73, 1961, p. 347-349.

VENUS

- Anonymous, "Exploring Venus by Radar," *Spaceflight*, V. 3, 1961, p. 180-182.
- Anonymous, "Venus - Eastern Elongation, 1959," *Mercury and Venus Report*, British Astronomical Association. Journal, V. 71, 1961, p. 64-74.
- Anonymous, "Venus - Western Elongation, 1959-1960," *Mercury and Venus Report*, British Astronomical Association. Journal, V. 71, 1961, p. 146.
- Anonymous, "Results of the Mariner II Spaceflight to Venus," *IGY Bulletin*. National Academy of Sciences, No. 73, in *American Geophysical Union. Transactions*, V. 44, No. 3, 1963, p. 783-791.
- Anonymous, "Venus - Western Elongation of 1961," *Mercury and Venus Section Report*, British Astronomical Association. Journal, V. 73, No. 3, 1963, p. 103-106, Plate 5-6.
- Barrett, A., "Microwave Absorption and Emission in the Atmosphere of Venus," *Journal of Geophysical Research*, V. 65, 1960, p. 1835-1838.
- Barrett, A. H., Copeland, J., Jones, D. E., and Lilley, A. E., "Objectives of the Mariner Venus Microwave Radiometer Experiment," *California Institute of Technology, Jet Propulsion Laboratory, TR-32-156*, 1961, 27 pp.
- Barrett, A. H., "Microwave Absorption and Emission in the Atmosphere of Venus," *Astrophysical Journal*, V. 133, 1961, p. 281-293.
- Blitzstein, W., (See Maron, I., 1961)
- Block, N., (See Muhleman, D. O., 1962)
- Block, N., (See Muhleman, D. O., 1962)
- Bobrovnikoff, N. T., (See Shaw, J. H., 1959)
- Briggs, M. H., and Mamikunian, G., "Venus - A Summary of Present Knowledge," *British Interplanetary Society. Journal*, V. 19, No. 2, 1963, p. 45-52.
- Brinton, H., and Moore, P. A., "On the Phase Anomaly of Venus," *British Astronomical Association. Journal*, V. 73, No. 3, 1963, p. 119-120.
- Briscoe, H. W., (See Pettingill, G. H., 1962)

Cattermole, P. J., (See Moore, P. A., 1960)

Cattermole, P. J., Nicholson, I., and Moore, F. A., "Estimating the Phase of Venus, Some Practical Experiments," British Astronomical Association. Journal, V. 73, No. 3, 1963, p. 118-119.

Chamberlain, J. W., and Kuiper, G. P., "Rotational Temperature and Phase Variation of CO₂ Bands of Venus," Astrophysical Journal, V. 124, 1956, p. 399.

Chase, S. C., Kaplan, L. D., and Neugebauer, G., "The Mariner 2 Infrared Radiometer Experiment," Journal of Geophysical Research, V. 68, No. 22, 1963, p. 6157-6169.

Copeland, J., (See Barrett, A. H., 1961)

Corbett, H. H., (See Grant, C. R., 1962)

Cruikshank, D. P., "Comments on Pitchers Interpretation of the Venus Cusp Caps," British Astronomical Association. Journal, V. 74, No. 1, 1964, p. 28-31.

Danilov, A. D., and Vatsenko, S. P., "The Possibility of the Existence of High Electron Concentrations in the Night Time Atmosphere of Venus," Geomagnetism and Aeronomy, V. 12, No. 2, 1962, 2 pp.

Dole, S. H., "The Venusian Atmosphere," Lunar and Planetary Exploration Colloquium. Proceedings, V. 1, No. 5, 1959, p. 12-14.

Dolginov, S. S., Yeroshenko, Y. G., Zhuzgov, L. N., and Pushkov, N. V., "Magnetic Measurements Aboard The Venus Automatic Interplanetary Station," Geomagnetism and Aeronomy, V. 2, No. 1, 1962, 3 pp.

Dollfus, A., "Photographic and Visual Study of the Atmosphere of Venus," L'Ostronomie, 1956, p. 413.

Edson, J. B., "Measuring the Venusian Atmosphere by Russel's Method," Lunar and Planetary Exploration Colloquium. Proceedings, 1959, p. 22-30.

Evans, J. V., (See Pettingill, G. H., 1962)

Firsoff, V. A., "The Markings of Venus," British Astronomical Association. Journal, V. 70, 1960, p. 359-360.

Firsoff, V. A., (See Heath, A. W., 1961)

Gehrels, E., (See Pettingill, G. H., 1962)

Grant, C. R., and Corbett, H. H., "Observations of Venus at 4.3 mm," Abstract of Paper Presented at the 109th Meeting of the American Astronomical Society, Dec. 26-30, 1961, at Denver, Colorado, in Astronomical Journal, V. 67, No. 2, 1962, p. 109-124.

Heath, A. W., Robinson, J. H., Wykes, F. C., and Firsoff, V. A., "Filter Observations of Venus in 1959," British Astronomical Association. Journal, V. 71, 1961, p. 242.

Heath, M. B., "The Greatest Brilliancy of Venus," British Astronomical Association. Journal, V. 71, 1961, p. 28-31.

Holdridge, D. B., (See Muhleman, D. C., 1962)

Holdridge, D. B., (See Muhleman, D. O., 1962)

Houtgast, C., "Indication of a Magnetic Field of the Planet Venus," Nature, V. 175, 1955, p. 678-679.

Hyde, G. M., (See Pettingill, G. H., 1962)

Jones, D. E., (See Barrett, A. H., 1961)

Jones, D. E., "The Microwave Temperature of Venus," Planetary and Space Science, V. 5, 1961, p. 166-167.

Kaplan, L. D., "A New Interpretation of the Structure and CO₂ Content of the Venus Atmosphere," Planetary and Space Science, V. 3, Oct. 1961, p. 23-29.

Kaplan, L. D., (See Chase, S. C., 1963)

Knoll, R. H., (See Smolak, G. R., 1960)

Kraft, L. G., (See Pettingill, G. H., 1962)

Kraus, J. D., "Apparent Radio Radiation at 11-m Wavelength From Venus," Nature, V. 186, 1960, p. 462.

Kuiper, G. P., (See Chamberlain, J. W., 1956)

Kuzmin, A. D., and Salomonovich, A. E., "Radio Emissions from Venus in the 8 mm Bandwith," Soviet Astronomy - AJ, V. 4, 1960, p. 279-282.

Lilley, A. E., (See Barrett, A. H., 1961)

Lilley, A. E., "The Temperature of Venus," Astronomical Journal, V. 66, 1961, p. 290.

Luchok, G., (See Maron, I., 1961)

Lynn, V. L., Meeks, M. L., and Sohigian, M. D., "8-5-Millimeter Radio Emission from Venus and Taurus A," Abstract of Paper Presented at the 113th Meeting of the American Astronomical Society, 17-20 April 1963, at the Kitt Peak National Observatory, University of Arizona, Tucson, in Astronomical Journal, V. 68, No. 5, 1963, p. 271-301.

Mahoney, J. R., "Steady-State Atmospheric Dynamics for Venus in the Case of Slow Rotation," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in American Geophysical Union. Transactions, V. 43, No. 4, Dec. 1962.

Mamikunian, G., (See Briggs, M. H., 1963)

Maron, I., Luchok, G., and Blitzstein, W., "Radio Observations of Venus," Science, V. 134, 1961, p. 1419-1420.

Martynov, D. Y., "The Radius of Venus," Soviet Astronomy - AJ, V. 4, 1961, p. 798-804.

Mayer, C. H., McCullough, T. P., and Sloanaker, R. M., "Temperature of Venus," Proceedings of IRE, V. 46, 1958, p. 260.

Mayer, C. H., McCullough, T. P., and Sloanaker, R. M., "Temperature of Venus," Astrophysical Journal, V. 127, 1958, p. 1.

McCullough, T. P., (See Mayer, C. H., 1958)

McCullough, T. P., (See Mayer, C. H., 1958)

Meeks, M. L., (See Lynn, V. L., 1963)

Menzel, D. H., and Whipple, F. L., "The Case for H₂O Clouds on Venus," Astronomical Society of the Pacific. Publications, V. 67, 1955, p. 161-168.

Mintz, Y., "Temperature and Circulation of the Venus Atmosphere," Planetary and Space Science, V. 5, 1961, p. 141-152.

Moore, P. A., "Beneath the Clouds of Venus," Astronautics, V. 2, 1955, p. 7-8.

Moore, P. A., and Cattermole, P. J., "The Markings of Venus," British Astronomical Association. Journal, V. 70, 1960, p. 130.

Moore, P. A., (See Cattermole, P. J., 1963)

Moore, P. A., (See Brinton, H., 1963)

Mueller, R. F., "Chemistry and Petrology of Venus - Preliminary Deductions," Science, Sept. 1963, p. 1046-1047.

Muhleman, D. O., "Early Results of the 1961 Jet Propulsion Laboratory Venus Radar Experiment," Astronomical Journal, V. 66, 1961, p. 292.

Muhleman, D. O., Holdridge, D. B., and Block, N., "The Astronomical Unit Determined by Radar Reflections from Venus," Astronomical Journal, V. 67, No. 4, 1962, p. 191-202.

Muhleman, D. O., "Radar Results as Constraints on the Models of Venus," Abstract of Paper Presented at the 110th Meeting of the American Astronomical Society, April 1-4, 1962, at Cambridge, Massachusetts, in Astronomical Journal, V. 67, No. 5, 1962, p. 267-286.

Muhleman, D. O., Holdridge, D. B., and Block, N., "The Astronomical Unit Determined by Radar Reflection from Venus," California Institute of Technology, Jet Propulsion Laboratory, TR-32-221, 1962, 18 pp.

Murray, B. C., Wildey, R. L., and Westphal, J. A., "Infrared Photometric Mapping of Venus Through the 8 to 14 Micron Atmospheric Window," Journal of Geophysical Research, V. 68, No. 16, 1963, p. 4813-4818.

Neugebauer, M., "Scientific Experiments for Space Probes near the Earth, Mars and Venus," ARS Preprint 1195-60, May 1960, 10 pp.

Neugebauer, G., (See Chase, S. C., 1963)

Newbauer, J. A., "Radar Contact with Venus," Astronautics, V. 4, May 1959, p. 50, 124.

Newkirk, G., "The Airglow of Venus," Planetary and Space Science, V. 1, 1959, p. 32-36.

Nicholson, S. B., (See St. John, C. E., 1922)

Nicholson, S. B., (See Pettit, E., 1955)

Nicolson, I., (See Cattermole, P. J., 1963)

Opik, E. J., "The Aeolosphere and the Atmosphere of Venus," Journal of Geophysical Research, V. 66, 1961, p. 2807-2819.

Pettingill, G. H., Briscoe, H. W., Evans, J. V., Gehrels, E., Hyde, G. M., Kraft, L. G., Price, R., and Smith, W. B., "A Radar Investigation of Venus," Astronomical Journal, V. 67, No. 4, 1962, p. 181-190.

Pettit, E., and Nicholson, S. B., "Temperatures on the Bright and Dark Sides of Venus," Astronomical Society of the Pacific. Publications, V. 67, 1955, p. 293.

Price, R., (See Pettingill, G. H., 1962)

Pushkov, N. V., (See Dolginov, S. S., 1962)

Richardson, R. S., "Spectroscopic Observations of Venus for Rotation Made at Mount Wilson in 1956," Astronomical Society of the Pacific. Publications, V. 70, 1953, p. 851.

Richardson, R. S., "Observations of Venus Made at Mount Wilson in the Winter of 1954-55," Astronomical Society of the Pacific. Publications, V. 67, 1955, p. 304-314.

Richardson, R. S., "Observations on Mars and Venus," Lunar and Planetary Exploration Colloquium. Proceedings, V. 1, No. 3, 1958, p. 19-27.

Richardson, R. S., "Spectroscopic Observations of Venus For Rotation Made at Mount Wilson in 1956," British Interplanetary Society. Journal, V. 16, Sept. - Oct. 1958, p. 517-524.

Robinson, J. H., (See Heath, A. W., 1961)

Robinson, J. H., "A Photometric Study of Venus, 1959," British Astronomical Association. Journal, V. 71, 1961, p. 113.

Sagan, C., "The Surface Temperature of Venus," Astronomical Journal, V. 65, 1960, p. 352-353.

Sagan, C., "The Radiation Balance of Venus," California Institute of Technology, Jet Propulsion Laboratory Report No. 32-34, 1960.

Sagan, C., "The Planet Venus," Science, V. 133, 1961, p. 849-858.

Sagan, C., "Structure of the Lower Atmosphere of Venus," Abstract of Paper Presented at the 110th Meeting of the American Astronomical Society, April 1-4, 1962, at Cambridge, Massachusetts, in Astronomical Journal, V. 67, No. 5, 1962, p. 267-286.

Salomonovich, A. E., (See Kuzmin, A. D., 1960)

Sax, R. L., "Exploration of the Atmosphere of Venus with a Small Payload," in Propulsion, Space Science and Exploration Symposium on Ballistic Missile and Aerospace Technology, 6th, Los Angeles, V. 3, Aug. 1961, p. 289-309.

Scarf, F. L., "Plasma Instability and the Microwave Radiation from Venus," Journal of Geophysical Research, V. 68, No. 1, 1963, p. 141-146.

Shaw, J. H., and Bobrovnikoff, N. T. "Natural Environment of the Planet Venus," WADC Phase Technical Note 847-2, AF 33(616)-5913, 1959, 65 pp., AD-242176.

Sinton, W. M., (See Strong, J., 1956)

Sinton, W. M., and Strong, J., "Radiometric Observations of Venus," Astrophysical Journal, V. 131, 1960, p. 470-490.

Sloanaker, R. M., (See Mayer, C. H., 1958)

Sloanaker, R. M., (See Mayer, C. H., 1958)

Smith, W. B., (See Pettingill, G. H., 1962)

Smith, W. B., "Radar Observations of Venus, 1961 and 1957," Astronomical Journal, V. 68, No. 1, 1963, p. 15-21.

Smolak, G. R., and Knoll, R. H., "Cryogenic Propellant Storage for Round Trips to Mars and Venus," Aerospace Engineering, V. 19, June 1960, p. 42-46.

Sohigian, M. D., (See Lynn, V. L., 1963)

Spinard, H., "On the Continuous Spectrum of Venus and Jupiter," Astronomical Society of the Pacific. Publications, V. 74, No. 137, 1962, p. 156-158.

Spinrad, H., "Spectroscopic Temperature and Pressure Measurements in the Venus Atmosphere," Astronomical Society of the Pacific. Publications, V. 74, No. 138, 1962, p. 187-201.

St. John, C. E., and Nicholson, S. B., "Absence of O_2 and H_2O Lines from Spectrum of Venus," Astrophysical Journal, V. 56, 1922, p. 380.

Stevens, R., (See Victor, W. K., 1961)

Straiton, A. W., (See Tolbert, C. W., 1962)

Straly, W. H., "Mars or Venus," Lunar and Planetary Exploration Colloquium. Proceedings, V. 1, No. 5, 1959, p. 4-11.

Strong, J., and Sinton, W. M., "Radiometry of Mars and Venus," Science, V. 123, 1956, p. 676.

Strong, J., (See Sinton, W. M., 1960)

Tolbert, C. W., and Straiton, A. W., "A Consideration of Microwave Radiation Associated with Particles in the Atmosphere of Venus," Journal of Geophysical Research, V. 67, No. 5, 1962, p. 1741-1744.

Vatsenko, S. P., (See Danilov, A. D., 1962)

- Victor, W. K., and Stevens, R., "Exploration of Venus by Radar," Science, V. 134, 1961, p. 46-48.
- Warner, B., "The Emission Spectrum of the Night Side of Venus," Royal Astronomical Society. Monthly Notices, V. 121, 1960, p. 279-283.
- Warner, B., "The Clouds of Venus," British Astronomical Association. Journal, V. 71, 1961, p. 200.
- Warner, B., "The Observation of Detail on the Planet Venus," British Astronomical Association. Journal, V. 71, 1961, p. 202.
- Warner, B., "The Phase Anomaly of Venus," British Astronomical Association. Journal, V. 73, No. 2, 1963, p. 65-70.
- Weinberg, J. L., and Newkirk, G., "Airglow of Venus, A Re-examination," Planetary and Space Science, V. 5, 1961, p. 163.
- Westphal, J. A., (See Murray, B. C., 1963)
- Wheelock, H. J., "Mariner - Mission to Venus," McGraw-Hill, 1963.
- Whipple, F. L., (See Menzel, D. H., 1955)
- Willey, R. L., (See Murray, B. C., 1963)
- Wykes, F. C., "The Rotational Period and Tilt of the Planet Venus," Spaceflight, V. 2, Apr. 1959, p. 63-64.
- Wykes, F. C., (See Heath, A. W., 1961)
- Yeroshenko, Y. G., (See Dolginov, S. S., 1962)
- Zhuzgov, L. N., (See Dolginov, S. S., 1962)

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FRAMES

IV. EXTRATERRESTRIAL
MATERIALS

ASTEROIDS AND COMETS

Anders, E., (See Fish, R. A., 1960)

Anonymous, "The Asteroids," Sky and Telescope, V. 21, 1961, p. 150-151.

Beard, D. B., and Nakada, M. P., "Interplanetary Magnetic Fields as a Cause of Comet Tails," Nature, V. 199, No. 4893, 1963, p. 580.

Bierman, L., "The Plasma Tails of Comets and the Interplanetary Plasma," Space Science Reviews, V. 1, No. 3, 1962, p. 553.

Brandt, J. C., "A Note on the Gas Trail of Comets," Astronomical Journal, V. 67, No. 3, 1962, p. 180.

Brouwer, D., "The Problem of the Kirkwood Gaps in the Asteroid Belt," Astronomical Journal, V. 68, No. 3, 1963, p. 152-159.

Cole, D. M., "Capturing the Asteroid," Astronautics and Aerospace Engineering, Mar. 1963, p. 88-93.

Donn, B., "Coma Formation and an Artificial Comet Experiment," Astronomical Journal, V. 66, 1961, p. 282.

Donn, B., "The Characteristics of Distant Comets," NASA TN D-1671, 1963, 70 pp.

Evdokimov, Y. V., "Motion of the Jacobini - Zinner Comet from 1933 to 1946," Soviet Astronomy - A. J., V. 7, No. 3, 1963, p. 411-421.

Fish, R. A., Goles, G. G., and Anders, E., "The Record in the Meteorites. III. On the Development of Meteorites in Asteroidal Bodies," Astrophysical Journal, V. 132, 1960, p. 243-258.

Goles, G. G., (See Fish, R. A., 1960)

Hawkins, G. S., "Asteroidal Fragments," Astronomical Journal, V. 65, 1960, p. 318-322.

Kozai, Y., "Secular Perturbations of Asteroids with High Inclination and Eccentricity," Abstract of Paper Presented at the 111th Meeting of the American Astronomical Society, Aug. 26-29, 1962, Yale University, New Haven, Connecticut, in Astronomical Journal, V. 67, No. 9, 1962, p. 571-590.

Lyttleton, R. A., "The Comets and Their Origin," Cambridge University Press, 1953, 173 pp.

Malaise, D., "Photographic Observations of the Tail Activity of Comet Burnham 1960 II," *Astronomical Journal*, V. 68, No. 8, 1963, p. 561-565.

Marochnik, L. S., "The Form of Cometary Envelopes," *Soviet Astronomy - A. J.*, V. 4, 1960, p. 480-484.

Marsden, B. G., (See Van Biesbroeck, G., 1963)

Marsden, B. G., (See Van Biesbroeck, G., 1963)

Mitler, H. E., "Helium 3 in Planetesimals," *Journal of Geophysical Research*, V. 68, No. 15, 1963, p. 4587-4594.

Nakada, M. P., (See Beard, D. B., 1963)

Odell, C. R., "Emission-Band and Continuum Photometry of Comet Burnham, 1959K," *Astronomical Society of the Pacific. Publications*, V. 73, 1961, p. 35-42.

Oro, J., "Comets and the Formation of Biochemical Compounds on the Primitive Earth," *Nature*, V. 190, 1961, p. 389-390.

Rabe, E., "On the Formation of Rapidly Rotating Asteroids," *Astrophysical Journal*, V. 131, 1960, p. 231-240.

Remy-Battiau, L., "Behavior of the Forbidden Lines of Oxygen in Comets, II, Relationship with Solar Activity and Mechanisms of Excitation," *Annals of Astrophysics*, V. 25, 1962, p. 171-184. (French)

Richter, N. B., "The Nature of Comets," Translated and Revised by A. Beer, Methuen, 1963, 221 pp.

Rieksynsh, E. V., (See Shteins, K. A., 1961)

Roemer, E., "Comet Notes," *Astronomical Society of the Pacific. Publications*, V. 75, No. 443, 1963, p. 199-201.

Roemer, E., "Comet Notes," Astronomical Society of the Pacific. Publications, V. 75, No. 444, 1963, p. 292-294.

Roemer, E., "Mass and Nuclear Dimensions of Comet Wirtanen, 1957 VI," Abstract of Paper Presented at the 114th Meeting of the American Astronomical Society, 22-24 July 1963, in Astronomical Journal, V. 68, No. 8, 1963, p. 533-547.

Roemer, E., "Comet Notes," Astronomical Society of the Pacific. Publications, Feb. 1963, p. 77-79.

Shteins, K. A., "The Diffusion of Comets - II. The Stationary Process," Soviet Astronomy - A. J., V. 5, 1961, p. 78-83.

Shteins, K. A., and Rieksynsh, E. Y., "On the Diffusion of Comets - I," Soviet Astronomy - A. J., V. 4, 1961, p. 998-1004.

Southworth, R. B., "Dust in Comet Arend-Roland," Abstract of Paper Presented at the 113th Meeting of the American Astronomical Society, 17-20 April 1963, at the Kitt Peak National Observatory, University of Arizona, Tucson, Arizona, in Astronomical Journal, V. 68, No. 5, 1963, p. 271-301.

Swings, P., "Behavior of the Forbidden Lines of Oxygen in Comets, I - Observations," Annals of Astrophysics, V. 25, 1962, p. 165-170.

Van Biesbroeck, G., "Comet Observations," Astronomical Journal, V. 67, No. 6, 1962, p. 422-428.

Van Biesbroeck, G., and Marsden, B. G., "Orbit of Comet 1954 V(Abell)," Astronomical Journal, V. 68, No. 3, 1963, p. 212-214.

Van Biesbroeck, G., and Marsden, B. G., "Orbit of Comet 1960 II Burnham," Astronomical Journal, V. 68, No. 8, 1963, p. 566-567.

Van Biesbroeck, G., "Comet Observations," Astronomical Journal, V. 68, No. 9, 1963, p. 733-737.

Vorontsov-Vel Yaminov, B. A., "Partial Gas Densities in Comet 1942G Whipple," Soviet Astronomy - A. J., V. 4, 1961, p. 674-679.

Whipple, F. L., "Problems of the Cometary Nucleus," *Astronomical Journal*, V. 66, 1961, p. 375-380.

Whipple, F. L., "On the Distribution of Semimajor Axes among Comet Orbits," *Astronomical Journal*, V. 67, No. 1, 1962, p. 1.

Wurm, K., "Structure and Development of the Gas Tails of Comets," *Astronomical Journal*, V. 66, 1961, p. 362-367.

Zadunaisky, P. E., "Preliminary Report on a New Computation of the Orbit of Halley's Comet," Abstract of Paper Presented at the 110th Meeting of the American Astronomical Society, April 1-4, 1962, at Cambridge, Massachusetts, in *Astronomical Journal*, V. 67, No. 5, 1962, p. 267-286.

METEORS, MICROMETEORITES, DUST, ETC.

Alexander, W. M., (See Lagow, H. E., 1960)

Alexander, W. M., McCracken, C. W., and Lagow, H. E., "Interplanetary Dust Particles of Micron Size Probably Associated with the Leonid Meteor Stream," *Journal of Geophysical Research*, V. 66, 1961, p. 3970-3973.

Alexander, W. M., (See McCracken, C. W., 1961)

Alexander, W. M., (See McCracken, C. W., 1961)

Ananthakrishnan, R., "Light Curves of Meteors," *Nature*, V. 187, 1960, p. 675-676.

Anisimov, S. I., (See Perelman, T. L., 1961)

Appleton, E., and Naismith, R., "The Radio Detection of Meteor Trails and Allied Phenomena," *Physical Society of London. Proceedings*, V. 59, 1947, p. 461-473.

Beard, D. B., "Interplanetary Dust Distribution," *Astrophysical Journal*, V. 129, No. 2, 1959, p. 495-506.

Beard, D. B., (See Fremlin, H. H., 1961)

Beard, D. B., "Interplanetary Dust Distribution and Erosion Effects," *Astronautical Society Paper No. 58-23*.

Bellovick, O. I., "A Determination of the Mean Square Deviation of the Time Rate of Meteors," *Soviet Astronomy- A. J.*, V. 5, 1961, p. 396.

Bjork, R. L., and Gazley, C., "Estimated Damage to Space Vehicles by Meteoroids," *Rand Research Memo RM-2332*, 20 Feb. 1959.

Bjork, R. L., "Meteoroid Hazard to Nuclear Spacecraft," *Nucleonics*, V. 19, Apr. 1961, p. 91-92.

Bjork, R. L., "Meteoroids Vs. Space Vehicles," *ARS Journal*, V. 31, No. 6, 1961, p. 803-807.

Brierley, D. M., and Davies, J. G., "Lunar Influence on Meteor Rates," Journal of Geophysical Research, V. 68, No. 22, 1963, p. 6213-6214.

Briggs, R. E., "Steady-State Space Distribution of Meteoric Particles Under the Operation of the Poynting-Robertson Effect," Abstract of Paper Presented at the 110th Meeting of the American Astronomical Society, April 1-4 1962, at Cambridge, Massachusetts, in Astronomical Journal, V. 67, No. 5, 1962, p. 267-286.

Brown, H., "The Density and Mass Distribution of Meteoritic Bodies in the Neighborhood of the Earth's Orbit," Journal of Geophysical Research, V. 65, 1960, p. 1679-1683.

Brown, H., "The Density and Mass Distribution of Meteoritic Bodies in the Neighborhood of the Earth's Orbit," First International Space Science Symposium. Proceedings, Nice, Jan. 1960.

Brown, H., "Addendum. The Density and Mass Distribution of Meteoritic Bodies in the Neighborhood of the Earth's Orbit," Journal of Geophysical Research, V. 66, 1961, p. 1316-1317.

Cheng, S. I., "Meteoric Ablation Through Interfacial Instability," ARS Journal, V. 29, No. 8, 1959, p. 579-587.

Convair, "Extraterrestrial Dust," Convair Report ZP-7-038, Oct. 18 1959.

Cook, A. F., and Hughes, R. F., "A Reduction Method for the Motix of Persistent Meteor Trains," Smithsonian Contributions to Astrophysics, V. 1, No. 2, 1957, p. 225-238.

Cook, A. F., and Hawkins, G. S., "The Meteoric Heat Echo," Smithsonian Contribution to Astrophysics, V. 5, No. 1, 1960, p. 1-7.

Cook, A. F., Hawkins, G. S., and Stienon, F. M., "Meteor Trail Widths," Astronomical Journal, V. 67, No. 3, 1962, p. 158.

Crozier, W. D., "Micrometeorite Measurements - Satellite and Ground Level Data Compared," Journal of Geophysical Research, V. 66, 1961, p. 2973-2995.

Dallavalle, J. M., "Micro-Metiritics," 2nd Edition, Pitman, 1948.

Darvillier, A., "Cosmic Dust," Newnes International Monographs on Astronautics and Astronomy, 1963, 168 pp.

Davidson, E. H., and Winslow, P. C., "Space Debris Hazard Evaluation," NASA TN D-1105, 1961, 95 pp.

Davies, J. G., and Gill, J. C., "Radio Echo Measurements of the Orbits of Faint Sporadic Meteors," Royal Astronomical Society. Monthly Notices, V. 121, 1960, p. 437-452.

Davies, J. G., (See Elyett, C. D., 1948)

Davies, J. G., (See Brierley, D. M., 1963)

Davis, J., Greenhow, J. S., and Hall, J. E., "The Effect of Attachment of Radio Echo Observations of Meteors," Royal Society of London. Proceedings, Series A, V. 253, Nov. 1959, p. 130-139.

Davis, J., Greenhow, J. S., and Hall, J. E., "Combined Photographic and Radio Echo Observations of Meteors," Royal Society of London. Proceedings, Series A, V. 253, Nov. 1959, p. 130-139.

Davis, J., and Hall, J. E., "Meteor Luminosity and Ionization," Royal Society of London. Proceedings, Series A, V. 271, No. 1344, 1963, p. 120-128.

Dokuchaev, V. P., "Formation of an Ionized Meteor Trail," Soviet Astronomy - A. J., V. 3, 1960, p. 106-109.

Du Vall, B. W., (See Jenkins, A. W., 1963)

Duberg, J. E., "The Meteoritic Hazard of the Environment of a Satellite," NASA TN D-1248, May 1962, 34 pp.

Dubin, M., "Meteoritic Dust Measured from Explorer I," Planetary and Space Science, V. 2, 1960, p. 121-129.

Dubin, M., (See McCracken, C. W., 1961)

Dubin, M., (See Manring, E. R., 1958)

Dubin, M., (See McCracken, C. W., 1961)

Dubin, M., "Remarks on the Article by A. R. Hibbs 'The Distribution of Micrometeorites Near the Earth,'" Journal of Geophysical Research, V. 66, 1961, p. 2592-2594.

Dubin, M., and McCracken, C. W., "Measurements of Distributions of Interplanetary Dust," Symposium - Small Meteoric Particles in the Earth's Neighborhood, April 2, 1962, Cambridge, Massachusetts, in Astronomical Journal, V. 67, No. 5, 1962, p. 248-256.

Eddy, J. A., (See Newkirk, G., 1962)

Ellyett, C. D., and Davies, J. G., "Velocity of Meteors Measured by Diffraction of Radio Waves from Trails During Formation," Nature, V. 161, 1948, p. 596-597.

Ellyett, C. D., (See Keay, C. L., 1961)

Ellyett, C. D., and Keay, C. L., "All-Sky Meteor Rates in the Southern Hemisphere," Journal of Geophysical Research, V. 66, 1961, p. 2590-2591.

Ellyett, C. D., and Fraser, B. J., "On the Correlation of Meteors with Micropulsations," Journal of Geophysical Research, V. 68, No. 21, 1963, p. 5937-5945.

Eshleman, V. R., "Meteor Scatter," Stanford Electronics Laboratories, Stanford University, AFCRC-TN-58-370, AF 19(604)-2193, 1958, 36 pp. AD-160819.

Eshleman, V. R., and Gallagher, P. B., "Radar Studies of 15th - Magnitude Meteors," Symposium - Small Meteoric Particles in the Earth's Neighborhood, April 2, 1962, Cambridge, Massachusetts, in Astronomical Journal, V. 67, No. 5, 1962, p. 245-248.

Fialko, E. I., "Mean Hourly Rate of Meteors Recorded by Radar," Soviet Astronomy - A. J., V. 3, 1960, p. 612-614.

Fialko, E. I., "A Method for Studying the Distribution by Mass of Meteoric Bodies," Soviet Astronomy - A. J., V. 3, 1960, p. 970-973.

Fialko, E. I., "The Velocity Distribution of Meteoroids," Soviet Astronomy - A. J., V. 4, 1960, p. 334-336.

Fialko, E. I., "The Duration Distribution of Meteor Radio Echoes. II. Reflections from Unstable Trails," Soviet Astronomy - A. J., V. 4, 1960, p. 498-501.

Fialko, E. I., "Radar Methods for Observing Meteors," Radiolokatsionnye Metody Nablyudeniya Meteorov, Moscow, 1961, 111 pp. (Translated by the Office of Technical Services)

Fialko, E. I., "The Dependency of the Mean Hourly Rates of Recorded Meteors on the Parameters of Meteoroids, the Atmosphere, and the Radar System," Soviet Astronomy - A. J., V. 4, 1961, p. 711-721.

Fireman, E. L., and Kietner, G. A., "The Nature of Dust Collected at High Altitudes," Geochimica et Cosmochimica Acta, V. 24, 1961, p. 10.

Forsyth, P. A., and Vogan, E. L., "The Duration of Forward-Scattered Signals from Meteor Trails," Canadian Journal of Physics, V. 34, 1956.

Fraser, B. J., (See Ellyett, C. D., 1963)

Fremelin, H. H., Beard, D. B., and Whipple, T. L., "The Dust Cloud About the Earth," Nature, V. 191, 1961, p. 31-34.

Fullam, E. F., (See Hemenway, C. L., 1962)

Furman, A. M., "The Theory of Ionization in Meteor Trails. I. Kinetics of the Variation of Ionization Parameters for Meteoroids Heated by Motion in the Earth's Atmosphere," Soviet Astronomy - A. J., V. 4, 1960, p. 489-497.

Furman, A. M., "A Theory of Ionization of Meteor Trails, II. The Role of Ionization Phenomena at the Surface of a Meteoroid in the Ionization of the Meteor Trail," Soviet Astronomy - A. J., V. 4, 1961, p. 705-710.

- Gallagher, P. B., (See Eshleman, V. R., 1962)
- Gazley, C., (See Bjork, R. L., 1959)
- Gill, J. C., (See Davies, J. G., 1960)
- Greenhow, J. S., (See Davis, J., 1959)
- Greenhow, J. S., (See Davis, J., 1959)
- Greenhow, J. S., and Hall, J. E., "The Importance of Initial Trail Radius on the Apparent Height and Number Distributions of Meteor Echoes," Royal Astronomical Society. Monthly Notices, V. 121, 1960, p. 183-196.
- Greenhow, J. S., and Hall, J. E., "The Variation of Meteor Heights with Velocity and Magnitude," Royal Astronomical Society. Monthly Notices, V. 121, 1960, p. 174-182.
- Gustavson, J., "The Possibilities of Interstellar Flight," Jet Propulsion, V. 27, No. 1, 1957, p. 69-70.
- Gustavson, J., "Meteoric Dust," Jet Propulsion, V. 27, Feb. 1957, p. 207-208.
- Halliday, I., "The Spectrum of an Asteroidal Meteor Fragment," Astrophysical Journal, V. 132, 1960, p. 482-485.
- Hall, J. E., (See Davis, J., 1959)
- Hall, J. E., (See Davis, J., 1959)
- Hall, J. E., (See Greenhow, J. S., 1960)
- Hall, J. E., (See Greenhow, J. S., 1960)
- Hall, J. E., (See Davis, J., 1963)
- Halliday, I., (See Millman, P. M., 1961)
- Hamid, S. E., and Whipple, F. L., "Common Origin Between the Quadrantids and the Aquarids Streams," Abstract of Paper Presented at the 114th Meeting of the American Astronomical Society, 22-24 July 1963, in Astronomical Journal, V. 68, No. 8, 1963, p. 533-547.

Hastings, E. C., "The Explorer XVI Micrometeoroid Satellite, Supplement 1, Preliminary Results for the Period January 14, 1963," NASA TN X-814, 1963, 14 pp.

Hawkins, G. S., and Southworth, R. B., "The Statistics of Meteors in the Earth's Atmosphere," Smithsonian Contributions to Astrophysics, V. 2, No. 11, 1958, p. 349-369.

Hawkins, G. S., "The Method of Reduction of Short-Trail Meteors," Smithsonian Contributions to Astrophysics, V. 1, No. 2, 1957, p. 207-214.

Hawkins, G. S., and Howard, W. E., "Decay of Light from a Meteor Train," Astrophysical Journal, V. 130, Nov. 1959, p. 1003-1007.

Hawkins, G. S., "The Relation Between Asteroids, Fireballs and Meteorites," Astronomical Journal, V. 64, 1959, p. 450-454.

Hawkins, G. S., (See Cook, A. F., 1960)

Hawkins, G. S., (See Cook, A. F., 1962)

Hawkins, G. S., "Radar Determination of Meteor Orbits," Symposium - Small Meteoric Particles in the Earth's Neighborhood, April 2, 1962, Cambridge, Massachusetts, in Astronomical Journal, V. 67, No. 5, 1962, p. 241-244.

Hemenway, C. L., and Soberman, R. K., "Studies of Micrometeorites Obtained from a Recoverable Sounding Rocket," Symposium - Small Meteoric Particles in the Earth's Neighborhood, April 2, 1962, Cambridge, Massachusetts, in Astronomical Journal, V. 67, No. 5, 1962, p. 256-266.

Hemenway, C. L., Soberman, R. K., and Fullam, E. F., "Micrometeorites - Collection from a Recoverable Sounding Rocket," Abstract of Paper Presented at the 109th Meeting of the American Astronomical Society, Dec. 26-30, 1961, at Denver, Colorado, in Astronomical Journal, V. 67, No. 2, 1962, p. 109-124.

Hey, J. S., Parsons, S. J., and Stewart, G. S., "Radar Observations of the Giacobinid Meteor Shower," Royal Astronomical Society. Monthly Notices, V. 107, 1947, p. 176-183.

Hodge, P. W., "Sampling Dust from the Stratosphere," Smithsonian Contributions to Astrophysics, V. 5, No. 10, 1961, 11 pp., AD-261568.

Hodge, P. W., (See Wright, F. W., 1963)

Hoening, S. A., "Meteoric Dust Erosion Problem and Its Effect on the Earth Satellite," *Aeronautical Engineering Review*, V. 16, Jul. 1957, p. 34-38.

Howard, W. E., (See Hawkins, G. S., 1959)

Hughes, R. F., (See Cook, A. F., 1957)

Hunter, W., and Parkin, D. W., "Cosmic Dust in Tertiary Rock and the Lunar Surface," *Geochimica et Cosmochimica Acta*, V. 24, 1961, p. 32.

Ingham, M. F., "Interplanetary Matter," *Space Science Reviews*, V. 1, No. 3, 1963, p. 576-588.

Jacchia, L. G., (See Whipple, F. L., 1957)

Jacchia, L. G., "On Two Parameters Used in the Physical Theory of Meteors," *Smithsonian Contributions to Astrophysics*, V. 2, No. 9, 1958, p. 181-187.

Jaeger, J. C., (See Lovering, J. F., 1960)

Jenkins, A. W., and Du Vall, B. W., "A Possible Mechanism for Magnetic Effects from Meteors," *Journal of Geophysical Research*, V. 68, No. 2, 1963, p. 599-600.

Kaechele, L. E., and Olshaker, A. E., "Meteoroids - Implications for the Design of Space Structures," *Aerospace Engineering*, May 1960.

Kaechele, L. E., and Olshaker, A. E., "Meteoroids - Implications for the Design of Space Structures," *Aerospace Engineering*, V. 19, May 1960, p. 44-45, 98.

Kaiser, T. R., "The Determination of the Incident Flux of Radiometeors," *Royal Astronomical Society. Monthly Notices*, V. 121, 1960, p. 284-298.

Kaiser, T. R., "The Incident of Interplanetary Dust," *Annales Geophysique*, V. 17, No. 1, 1961, p. 50-59.

Kaiser, T. R., "Meteors and the Abundance of Interplanetary Matter," *Space Science Reviews*, V. 1, No. 3, 1963, p. 554-575.

Kashcheev, B. L., and Lebedinets, V. N., "The Structure of the Geminid Shower," *Soviet Astronomy - A. J.*, V. 3, 1960, p. 615-625.

Kashcheev, B. L., and Lebedinets, V. N., "The Structure of the Quadrantid Meteor Stream," Soviet Astronomy - A. J., V. 3, 1960, p. 114-117.

Keay, C. L., and Ellyett, C. D., "The Latitude Dependence of Radar Meteor Shower Observations," Journal of Geophysical Research, V. 66, Aug. 1961, p. 2337-2343.

Keay, C. L., (See Ellyett, C. E., 1961)

Keay, C. L., "The Annual Variation in the Radiant Distribution of Sporadic Meteors," Atmospheric and Terrestrial Physics. Journal, V. 25, No. 9, 1963, p. 507-513.

Kent, G. S., "The Fading of Radio Waves Reflected Obliquely from Meteor Trails," Atmosphere and Terrestrial Physics. Journal, V. 19, 1960, p. 272-283.

Khaskindl, M. D., "Reflection of Radio Waves by Inclined Meteorite Trails," Radio Engineering and Electronic Physics (Radiotekhnika i Elektronika, No. 2, 1962, p. 558-567), Abstract in Digest of Translated Russian Literature, AIAA Journal, V. 1, No. 9, 1963, p. 2234.

Kietner, G. A., (See Fireman, E. L., 1961)

Komissarov, O. D., Nazarova, T. N., Neugodev, L. N., Poloskov, S. M., and Rusakov, L. Z., "Investigation of Micrometeorites with the Aid of Rockets and Satellites," ARS Journal, V. 29, No. 10, 1959.

Komissarov, O. D., Nazarova, T. N., Neugodev, L. N., Poloskov, S. M., and Rusakov, L. Z., "Micrometeorite Studies Using Rockets and Satellites," Artificial Earth Satellites No. 2, Academy of Sciences USSR, 1958, p. 54-58, Translated in Annals in the IGY, V. 12, No. 2, 1961, p. 460-465.

Kornhauser, M., "Estimates of the Penetration of the Skin of a Satellite by Meteoroids," General Electric, Applied Mechanics Memorandum No. 50, 1958, 10 pp.

Kornhauser, M., "Satellite Pressure Losses Caused by Meteoroid Impacts," ARS Journal, V. 30, No. 5, 1960, p. 475-479.

Kovshun, I. N., "Determination of the Height of the Earth's Homogeneous Atmosphere on the Basis of Meteor Photograph Data with Allowances for the Existence of a Maximum Meteor Mass and the Sensitivity of the Radiation Detector," *Geomagnetism and Aeronomy*, V. 2, No. 1, 1962, 8 pp.

Krinov, E. L., "The Nature of Micrometeorites," *American Journal of Science*, V. 259, 1961, p. 391.

Laevastu, T., and Mellis, O., "Size and Mass Distribution of Cosmic Dust," *Journal of Geophysical Research*, V. 66, 1961, p. 2507-2508.

Lagow, H. E., and Alexander, W. M., "Recent Direct Measurements by Satellites of Cosmic Dust in the Vicinity of the Earth," *NASA TN D-488*, 1960, 11 pp.

Lagow, H. E., (See Alexander, W. M., 1961)

Lagow, H. E., Schaefer, D. H., and Schaffert, J. C., "Micrometeoritic Impact Measurements on a 20 in. Diameter Sphere at 700 to 2500 Km. Altitude," *Annals of the IGY*, V. 12, No. 2, 1961, p. 465-472.

Lebedinets, V. N., (See Kashcheev, B. L., 1960)

Lebedinets, V. N., (See Kashcheev, B. L., 1960)

Longway, C. C., (See Wright, F. W., 1963)

Lovering, J. F., "Micrometeorite Impacts to an Altitude of 135 Km," *Planetary and Space Science*, V. 2, 1959, p. 75-77.

Lovering, J. F., Parry, L. G., and Jaeger, J. C., "Temperatures and Mass Losses in Iron Meteorites During Ablation in the Earth's Atmosphere," *Geochimica et Cosmochimica Acta*, V. 19, 1960, p. 156-167.

Mainstone, J. S., "The Calculation of Meteor Velocities from Continuous-Wave Radio Diffraction Effects from Trails," *Royal Astronomical Society. Monthly Notices*, V. 120, 1960, p. 517-529.

Manning, L. A., Villard, O. G., and Peterson, A. M., "Radio Doppler Investigation of Meteoric Heights and Velocities," *Applied Physics. Journal*, V. 20, 1949, p. 475-479.

Manning, L. A., "Discussion of Brysk's Paper-Specular Echoes from Dense Meteor Trails," Canadian Journal of Physics, V. 41, No. 4, 1963, p. 704-705.

Manning, L. A., "Ray-Path Calculation of Over-Dense Meteor Echo Strength," Atmospheric and Terrestrial Physics. Journal, V. 25, No. 3, 1963, p. 182-183.

Manring, E. R., and Dubin, M., "Satellite Micrometeorite Measurements," IGY Satellite Report No. 3, IGY World Data Center A, Rockets and Satellites, National Academy of Sciences, May 1958.

Manring, E. R., "Micrometeorite Measurements from 1958 Alpha and Gamma Satellite," Planetary and Space Science, V. 1, Jan. 1959, p. 27-31.

Maurice, D., "Direct Measurement of Meteoritic Dust Using Rockets and Satellites," General Assembly of the International Astronomical Union, 10th, Aug. 1958.

McCracken, C. W., (See Alexander, W. M., 1961)

McCracken, C. W., Alexander, W. M., and Dubin, M., "Direct Measurement of Interplanetary Dust Particles in the Vicinity of the Earth," Nature, V. 192, 1961, p. 441-443.

McCracken, C. W., Alexander, W. M., and Dubin, M., "Direct Measurements of Interplanetary Dust Particles in the Vicinity of Earth," NASA TN D-1174, 1961.

McCracken, C. W., (See Dubin, M., 1962)

McCrosky, R. E., "A Rapid Method of Meteor Trail Reduction," Smithsonian Contributions to Astrophysics, V. 1, No. 2, 1957, p. 215-224.

McIntosh, B. A., "Experimental Study of the Amplitude of Radar Meteor-Head Echoes," Canadian Journal of Physics, V. 41, No. 2, 1963, p. 355-371.

McKinley, D. R., and Millman, P. M., "A Phenomenological Theory of Radar Echoes from Meteors," IRE Proceedings, V. 37, 1949, p. 364-375.

McKinley, D. R., (See Millman, P. M., 1956)

McKinley, D. R., "Meteor Science and Engineering," McGraw-Hill, 1961.

McKinley, D. R., and Webb, E. R., "Reduction of Meteor Velocities from Continuous-Wave Radio Records," Royal Astronomical Society. York, 1961, 318 pp.

McKinley, D. R., "Introduction to Symposium on Small Meteoric Particles in Earths Neighborhood," Symposium - Small Meteoric Particles in the Earths Neighborhood, April 2, 1962, Cambridge, Massachusetts, in Astronomical Journal, V. 67, No. 5, 1962, p. 233-235.

Mellis, O., (See Laevastu, T., 1961)

Millard, H. T., "A Characterization of the Meteorite Flux at the Earths Orbit," Thesis Submitted to the Chemistry Department, California Institute of Technology, Pasadena, 1962.

Millman, P. M., (See McKinley, D. R., 1949)

Millman, P. M., "Radio Observations of Meteors," Science, V. 120, 1954, p. 325-328.

Millman, P. M., and McKinley, D. R., "Meteor Echo Durations and Visual Magnitudes," Canadian Journal of Physics, V. 34, 1956, p. 50-61.

Millman, P. M., "Meteor News - The Heights of Meteors," Royal Astronomical Society of Canada. Journal, V. 52, 1958, p. 230-232.

Millman, P. M., "The Contents of Space Near the Earth," Canadian Aeronautical Journal, V. 5, No. 9, Nov. 1959.

Millman, P. M., and Halliday, I., "The Near Infrared Spectrum of Meteors," Planetary and Space Science, V. 5, 1961, p. 137-140.

Millman, P. M., "The Meteor Radar Echo - An Observational Survey," Symposium - Small Meteoric Particles in the Earths Neighborhood, April 2, 1962, Cambridge, Massachusetts, in Astronomical Journal, V. 67, No. 5, 1962, p. 235-244.

Mirtov, B. A., "The Mechanism of Formation of a Meteor Trail," Soviet Astronomy - A. J., V. 4, 1960, p. 485-488.

Mirtov, B. A., "Meteoric Matter and Some Problems of Geophysics of the High Layers of the Atmosphere," Artificial Earth Satellites, Academy of Sciences USSR, No. 4, 1960, p. 118-134, Translated in ARS Journal, V. 32, Jan. 1962, p. 143-150.

Moroz, V. I., "Earth's Dust Envelope," AIAA Journal, V. 1, No. 9, 1963, p. 2212-2216.

Naismith, R., (See Appleton, E., 1947)

Nazarova, T. N., (See Komissarov, O. D., 1959)

Nazarova, T. N., (See Komissarov, O. D., 1961)

Nazarova, T. N., "Investigation of Meteoric Particles on the Third Soviet Artificial Earth Satellite," Planetary and Space Science, V. 8, 1961, p. 82-85.

Nazarova, T. N., "Investigation of Meteoric Particles on the Third Soviet Satellite," ARS Journal, V. 31, 1961, p. 1341.

Neugodev, L. N., (See Komissarov, O. D., 1959)

Neugodev, L. N., (See Komissarov, O. D., 1961)

Newkirk, G., and Eddy, J. A., "Upper Limit of Meteoritic Influx from Coronagraphic Measurements in the Stratosphere," Abstract of Paper Presented at the 109th Meeting of the American Astronomical Society, Dec. 26-30, 1961, at Denver, Colorado, in Astronomical Journal, V. 67, No. 2, 1962, p. 109-124.

Nininger, H. H., "Out of the Sky," Dover Publications, 1952.

Olshaker, A. E., (See Kaechele, L. E., 1960)

Olshaker, A. E., (See Kaechele, L. E., 1960)

Olshaker, A. E., "Experimental Investigation in Lead of the Whipple Meteor Bumper," Applied Physics. Journal, V. 31, 1960, p. 2118-2120.

Opik, E. J., "Meteor Radiation, Ionization and Atomic Luminous Efficiency," Royal Society of London. Proceedings, V. 230, Jul. 1955, p. 463-501.

Opik, E. J., "Physics of Meteor Flight in the Atmosphere," Interscience Publishers, 1958.

Parkin, D. W., (See Hunter, W., 1961)

Parsons, S. J., (See Hey, J. S., 1947)

Parry, L. G., (See Lovering, J. F., 1960)

Peregudov, R. I., "Dependence of the Duration of a Meteor Reflection Record on the Radar System Parameters," Soviet Astronomy - A. J., V. 4, 1960, p. 502-507.

Perelman, T. L., and Anismov, S. I., "On Density Distribution of Charged Particles in Meteor Trails," Akademiya Nauk SSSR, Doklady, V. 136, No. 4, 1961, p. 810-812, Translated by NASA, TT F-8031.

Peterson, A. M., (See Manning, L. A., 1949)

Peterson, A. W., "Thermal Radiation from Interplanetary Dust," Astrophysical Journal, V. 138, No. 4, 1963, p. 1218-1230.

Poloskov, S. M., (See Komissarov, O. D., 1959)

Poloskow, S. M., (See Komissarov, O. D., 1961)

Popova, M. D., "The Curvature of the Paths of Some Meteors During Their Motion Through the Earth's Atmosphere," Soviet Astronomy - A. J., V. 4, 1960, p. 332-333.

Rao, M. S., "Analysis of Meteoric Body Doppler Radar Records Taken During a Gemind Shower Period," Canadian Journal of Physics, V. 36, Jul. 1958, p. 840-848.

Rao, M. S., and Lokanadham, B., "A Typical Leonid Meteor Spectrum," Nature, V. 197, No. 4863, 1963, p. 169-170.

Reiffel, L., "Structural Effects and Particle Content of Interplanetary Space," *ARS Journal*, V. 30, 1960, p. 654-655.

Rcbey, D. H., "Meteoritic Dust and Ground Stimulation of Impact on Space Vehicles," *British Interplanetary Society. Journal*, V. 17, Jan.-Feb. 1959, p. 21-30.

Rodriguez, D., "Meteoroid Shielding for Space Vehicles," *Aerospace Engineering*, V. 19, 1960, p. 20-23, 55, 58, 60, 62, 64, 65, 66.

Rozenblyum, N. D., "The Use of the Photogrammetric Method in Determining the Spatial Coordinates of Points on a Meteor Trajectory," *Soviet Astronomy - A. J.*, V. 3, 1960, p. 975-985.

Rusakov, L. Z., (See Komissarov, C. D., 1959)

Rusakov, L. Z., (See Komissarov, O. D., 1961)

Ruskol, E. L., "Origin of the Interplanetary Dust Cloud Around the Earth," *AIAA Journal*, V. 1, No. 9, 1963, p. 2209-2212.

Schaffert, J. C., (See Lagow, H. E., 1961)

Schmidt, R. A., (See Thiel, E., 1961)

Schmidt, R. A., "Rate of Spherule Deposition on the Antarctic Ice Cap," *Journal of Geophysical Research*, V. 68, No. 2, 1963, p. 601-602.

Shapiro, I. I., "New Method for Investigating Micrometeoroid Fluxes," *Journal of Geophysical Research*, V. 68, No. 16, 1963, p. 4697-4705.

Singer, S. F., "The Effect of Meteoritic Particles on a Satellite," *Jet Propulsion*, V. 26, No. 12, 1956, p. 1071.

Singer, S. F., "Interplanetary Dust Near the Earth," *Nature*, V. 192, 1961, p. 321-323.

Skonick, H., "Ancient Meteoric Dust," *Geological Society of America. Bulletin*, V. 72, 1961, p. 1837-1841.

Smith, J. W., (See Weiss, A. A., 1960)

Soberman, R. K., (See Hemenway, C. L., 1962)

Soberman, R. K., (See Hemenway, C. L., 1962)

Southworth, R. B., (See Hawkins, G. S., 1958)

Southworth, R. B., "Deceleration of Radio Meteors," Abstract of Paper Presented at the 110th Meeting of the American Astronomical Society, April 1-4, 1962, at Cambridge, Massachusetts, in *Astronomical Journal*, V. 67, No. 5, 1962, p. 267-286.

Srirama, M., "Wake Spectrum of a Leonid Meteor," *Nature*, V. 198, No. 4875, 1963, p. 77-78.

Stewart, G. S., (See Hey, J. S., 1947)

Stienon, F. M., (See Cook, A. F., 1962)

Swetnick, M. J., "Meteoric Abrasion Studies Proposed for Vanguard," *Journal of Astronautics*, V. 4, No. 4, 1957, p. 72-75.

Tang, C. L., "A Possible Explanation of the Long Duration Radar Echoes of Ionized Trails in the Upper Atmosphere," *Journal of Geophysical Research*, V. 66, 1961, p. 1794-1795.

Thiel, E., and Schmidt, R. A., "Spherules from the Antarctic Ice Cap," *Journal of Geophysical Research*, V. 66, 1961, p. 307-310.

Villard, O. G., (See Manning, L. A., 1949)

Vogan, E. L., (See Forsyth, P. A., 1956)

Webb, E. R., (See McKinley, D. R., 1961)

Weiss, A. A., "Meteor Height Distributions and the Fragmentation Hypothesis," *Australian Journal of Physics*, V. 13, Sept. 1960, p. 532-549.

Weiss, A. A., "Radio-Echo Observations of Southern Hemisphere Meteor Shower Activity from 1956 December to 1958 August," Royal Astronomical Society. Monthly Notices, V. 120, 1960, p. 387-403.

Weiss, A. A., and Smith, J. W., "A Southern Hemisphere Survey of the Radiants of Sporadic Meteors," Royal Astronomical Society. Monthly Notices, V. 121, 1960, p. 5-16.

Whipple, F. L., and Jacchia, L. G., "Reduction Methods for Photographic Meteor Trails," Smithsonian Contributions to Astrophysics, V. 1, No. 2, 1957, p. 183-206.

Whipple, F. L., and Wright, F. W., "Methods for the Study of Shower Radiants from Photographic Meteor Trails," Smithsonian Contributions to Astrophysics, V. 1, No. 2, 1957, p. 239-243.

Whipple, F. L., "The Meteoric Risk to Space Vehicles," 8th International Astronautical Congress, Proceedings, Barcelona, 1957, Wienspringer-Verlag, 1958, p. 418-428.

Whipple, F. L., "Solid Particles in the Solar System," Journal of Geophysical Research, V. 64, No. 11, Nov. 1959.

Whipple, F. L., "The Earth's Dust Belt," Astronautical Sciences Review, V. 3, 1961, p. 17-20.

Whipple, F. L., "The Dust Cloud About the Earth," Nature, V. 189, Jan. 14, 1961, p. 127-128.

Whipple, F. L., (See Premlin, H. H., 1961)

Whipple, F. L., "Meteoritic Erosion in Space," Abstract of Paper Presented at the 110th Meeting of the American Astronomical Society, April 1-4, 1962, Cambridge, Massachusetts, in Astronomical Journal, V. 67, No. 5, 1962, p. 267-286.

Whipple, F. L., "On Meteoroids and Penetration," Astronautical Sciences. Journal, V. 10, No. 3, 1963, p. 92-94.

Whipple, F. L., (See Hamid, S. E., 1963)

Winslow, P. C., (See Davidson, E. H., 1961)

Wright, F. W., (See Whipple, F. L., 1957)

Wright, F. W., Hodge, P. W., and Longway, C. C., "Studies of Particles for Extraterrestrial Origin, I, Chemical Analysis of 118 Particles," Journal of Geophysical Research, V. 68, No. 19, 1963, ~ 5575-5583.

Zwicky, F., "On the Possibility of Earth Launched Meteors," Astronomical Society of the Pacific. Proceedings, V. 58, No. 343, Aug. 1946.

Zwicky, F., "Artificial Meteors," Engineering and Science Monthly, Pub. C. I. T., Jan. 1953.

METEORITES

Adams, E. W., and Huffaker, R. M., "Application of Ablation Analysis to Stony Meteorites and the Tektite Problem," *Nature*, V. 193, 1962, p. 1249-1251.

Ahrens, L. H., Edge, R. A., and Taylor, S. R., "The Uniformity of Concentration of Lithophile Elements in Chondrites - With Particular Reference to CS," *Geochimica et Cosmochimica Acta*, V. 20, 1960, p. 260-272.

Amerunddin, A., (See Ehmann, W. D., 1961)

Anders, E., "The Record in Meteorites, II. On the Presence of Aluminum - 26 in Meteorites and Tektites," *Geochimica et Cosmochimica Acta*, V. 19, 1960, p. 53-62.

Anders, E., and Stevens, C., "Search for Extinct Lead 205 in Meteorites," *Journal of Geophysical Research*, V. 65, 1960, p. 3043-3047.

Anders, E., (See Goles, G. G., 1960)

Anders, E., and Goles, G. G., "Theories on the Origin of Meteorites," *Chemical Education. Journal*, V. 38, 1961, p. 58-66.

Anders, E., (See Dufresne, E. R., 1961)

Anders, E., "Diamonds in Meteorites," Problems Related to Interplanetary Matter, National Academy of Science, National Research Council, Publication 845, 1961, p. 77-81.

Anders, E., (See Goles, G. G., 1961)

Anders, E., (See Goles, G. G., 1961)

Anders, E., (See Lipshutz, M. E., 1961)

Anders, E., "On the Origin of Carbonaceous Chondrites," Enrico Fermi Institute for Nuclear Studies, EFINS 62-27, 1962.

Anders, E., "Meteorite Ages," *Review of Modern Physics*, V. 34, 1962, p. 287-325.

Anders, E., "Meteorites and the Early History of the Solar System," Presented at the Conference on the Origin of the Solar System at the Institute for Space Studies, New York, 1963.

Anders, E., (See DuFresne, E. R., 1963)

Anderson, C. A., (See Nagy, B., 1963)

Anderson, E. C., and Van Dilla, M. A., "Gamma-Ray Spectrometry of a Sputnik 4 Fragment," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in American Geophysical Union. Transactions, V. 43, No. 4, Dec. 1962.

Arnold, J. R., "Cosmic-Ray Production on Radioactive Nuclides in Iron Meteorites," Problems Related to Interplanetary Matter, National Academy of Science, National Research Council, Publication 845, 1961, p. 45-50.

Arnold, J. R., Honda, M., and Lal, D., "Record of Cosmic-Ray Intensity in the Meteorites," Journal of Geophysical Research, V. 66, 1961, p. 3519-3531.

Arnold, J. R., (See Honda, M., 1961)

Arnold, J. R., (See Honda, M., 1961)

Arnold, J. R., (See Honda, M., 1961)

Arnold, J. R., "Nuclear Effects of Cosmic Rays in Meteorites," Review of Nuclear Science. Annals, V. 11, 1961, p. 349-370.

Axon, H. J., "Microstructural and Chemical Identity of the Bear Creek and Narraburra Iron Meteorites," Nature, V. 191, 1961, p. 1287.

Axon, H. J., "Destruction of the Widmanstätten Structure in Iron Meteorites by Laboratory Heat Treatment," Nature, V. 197, No. 4874, 1963, p. 1291.

Azmon, E., "Proposal...High Pressure, Non-Equilibrium, Igneous Characteristics in Tektites, Chondrites, and Achondrites," Northrop Space Laboratories, Report 62-84, June 1962.

Baadsgaard, H., Campbell, F. A., Folinsbee, R. E., and Cumming, G. L., "The Bruderheim Meteorite," Journal of Geophysical Research, V. 66, 1961, p. 3574-3577.

Baker, G., "A Perfectly Developed Hollow Australite," American Journal of Science, V. 259, 1961, p. 791.

Baker, R. L., "Sputtering as it is Related to Hyperbolic Meteorites," Applied Physics. Journal, V. 30, Apr. 1959, p. 550-555.

Baker, R. M., "Effect of Accommodation on the Transitional Aerodynamic Drag of Meteorites," Astrophysical Journal, V. 130, No. 1959, p. 1024-1026.

Bauer, C. A., "The Helium Contents of Metallic Meteorites," *Journal of Geophysical Research*, V. 68, No. 21, 1963, p. 6043-6057.

Bernal, J. D., "Significance of Carbonaceous Meteorites in Theories on the Origin of Life," *Nature*, V. 190, 1961, p. 129-131.

Bieri, R. H., and Rutsch, W., "Rare Gas Isotopes in the Iron and Stone Phases of Bruderheim," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in *American Geophysical Union. Transactions*, V. 43, No. 4, Dec. 1962.

Boato, G., "The Isotopic Composition of Hydrogen and Carbon in the Carbonaceous Chondrites," *Geochimica et Cosmochimica Acta*, V. 6, 1954, p. 209-220. ~~~~

Briggs, M. H., "Meteorites and the Origin of Life," *Spaceflight*, V. 2, Apr. 1959, p. 39-43.

Briggs, M. H., "Organic Constituents of Meteorites," *Nature*, V. 191, 1961, p. 1137-1140.

Briggs, M. H., "Evidence of an Extraterrestrial Origin for Some Organic Constituents of Meteorites," *Nature*, V. 197, No. 4874, 1963, p. 1290.

Briggs, M. H., (See Mamikunian, G., 1963)

Briggs, M. H., and Mamikunian, G., "Organic Constituents of the Carbonaceous Chondrites," *Space Science Reviews*, V. 1, No. 4, 1963, p. 647-682.

Briggs, R. E., "Steady-State Space Distribution of Meteoric Particles Under the Operation of the Paynting-Robertson Effect," *Astronomical Journal*, V. 67, No. 10, 1962, p. 710-723.

Brown, H., (See Duke, M. B., 1961)

Buchwald, V., "The Iron Meteorite, Thule, North Greenland," *Geochimica et Cosmochimica Acta*, V. 25, 1961, p. 95.

Buddhue, J. D., "The Abundance of Chemical Elements in Meteorites and Tektites," *Popular Astronomy*, V. 54, 1946, p. 308-311.

Butler, C. P., and Jenkins, R. J., "Thermal Properties of Meteoric Iron from -150 Deg. to 300 Deg. Celsius," *Science*, V. 139, No. 3554, 1963, p. 486-487.

Campbell, F. A., (See Baagsgard, H., 1961)

Carmichael, C. M. "A Magnetized Artificial Meteorite," *Nature*, V. 199, No. 4892, 1963, p. 426-427.

Chupakhin, M. S., (See Vinogradov, A. P., 1960)

Clarke, W. B., and Thode, H. G., "Xenon in the Bruderheim Meteorite," *Journal of Geophysical Research*, V. 66, 1961, p. 3578-3759

Claus, G., and Nagy, B., "A Microbiological Examination of Some Carbonaceous Chondrites," *Nature*, V. 192, 1961, p. 594-596.

Claus, G., (See Nagy, B., 1963)

Cumming, G. L., (See Baagsgard, H., 1961)

Davis, R., (See Kammerer, O. F., 1962)

Dawson, K. R., Maxwell, J. A., and Parson, D. E., "A Description of the Meteorite Which Fell Near Abee, Alberta, Canada," *Geochimica et Cosmochimica Acta*, V. 21, 1960, p. 127-144.

DeFelice, J., (See Fireman, E. L., 1960)

DeFelice, J., (See Fireman, E. L., 1961)

DeFelice, J., (See Tilles, D., 1962)

Dicke, R. H., "Diracs Cosmology and the Dating of Meteorites," *AEC*, NYO-8145, Nov. 1958, 4 pp.

Dicke, R. H., (See Peebles, P. J., 1962)

Dingle, H., and Pettersson, H., "The Frequency of Meteorite Falls Throughout the Ages," *Nature*, V. 191, 1961, p. 482.

Dontsova, E. I., (See Vinogradov, A. P., 1960)

DuBost, H., and LeFort, M., "Diffusion of Tritium out of Iron Samples in Relation to Tritium Content in Meteorites," *Nature*, V. 200, No. 4906, 1963, p. 566.

DuFresne, A., "Selenium and Tellurium in Meteorites," *Geochimica et Cosmochimica Acta*, V. 20, 1960, p. 141-148.

DuFresne, E. R., and Anders, E., "The Record in the Meteorites - V. A Thermometer Mineral in the Migher Carbonaceous Chondrite," *Geochimica et Cosmochimica Acta*, V. 23, 1961, p. 200.

DuFresne, E. R., and Anders, E., "On the Chemical Evolution of the Carbonaceous Chondrites," *Geochimica et Cosmochimica Acta*, in Press, 1963.

Duke, M. B., "Possible Shock Metamorphism and Impact Brecciation in Basaltic Achondrites," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in American Geophysical Union. Transactions, V. 43, No. 4, Dec. 1962.

Duke, M. B., Maynes, D., and Brown, H., "The Petrography and Chemical Composition of the Bruderheim Meteorite," Journal of Geophysical Research, V. 66, 1961, p. 3557-3563.

Eberhardt, A., (See Eberhardt, P., 1961)

Eberhardt, P., and Hess, D. C., "Helium in Stone Meteorites," Astrophysical Journal, V. 131, 1960, p. 38-45.

Eberhardt, P., and Eberhardt, A., "Ne in Some Stone Meteorites," Zeitschrift Naturorschung, V. 16A, No. 3, 1961, p. 236-238.

Edge, R. A., (See Ahrens, L. H., 1960)

Ehmann, W. D., Amerunddin, A., Rushbrook, P. R., and Hurst, M. E., "Some Trace of Element Abundances in the Bruderheim Meteorite," Journal of Geophysical Research, V. 66, 1961, p. 3581-3583.

Ehmann, W. D., "Zirconium and Hafnium in Stone Meteorites," Science, V. 139, No. 3555, 1963, p. 594-595.

Fahey, J. J., (See Skinner, B. J., 1963)

Feller-Kniepmeier, M., and Uhlig, H. H., "Nickel Analysis of Metallic Meteorites by the Electron-Probe Microanalyser," Geochimica et Cosmochimica Acta, V. 21, 1961, p. 257.

Finston, H. L., (See Kammerer, O. F., 1962)

Fireman, E. L., and Schwazer, D., "Measurement of Li_6 , He_3 , and H_3 in Meteorites and its Relation to Cosmic Radiation," Geochimica et Cosmochimica Acta, V. 11, 1957, p. 252-262.

Fireman, E. L., and DeFelice, J., "Argon-39 and Tritium in Meteorites," Geochimica et Cosmochimica Acta, V. 18, 1960, p. 183-192.

Fireman, E. L., "Argon 37, Argon 39, and Tritium in Recent Meteorite Falls," Problems Related to Interplanetary Matter, National Academy of Science, National Research Council, Publication 845, 1961, p. 28-30.

Fireman, E. L., and DeFelice, J., "Tritium, Argon 37, and Argon 39 in the Bruderheim Meteorite," Journal of Geophysical Research, V. 66, 1961, p. 3547-4551.

- Fireman, E. L., and Fisher, D. E., "Uranium in the Sikhote-Alin Meteorite and its Relation to the Lead Method of Age Determination," *Nature*, V. 192, 1961, p. 644-645.
- Fireman, E. L., (See Tilles, D., 1962)
- Fisher, D. E., and Schaeffer, O. A., "Cosmogenic Nuclear Reactions in Iron Meteorites," *Geochimica et Cosmochimica Acta*, V. 20, 1960, p. 5-14.
- Fisher, D. E., (See Fireman, E. L., 1961)
- Fisher, D. E., "Cosmic-Ray Ages of the Treysa and Sikhote-Alin Meteorites," *Nature*, V. 190, 1961, p. 225-227.
- Fisher, D. E., "Space Erosion of the Grant Meteorite," *Journal of Geophysical Research*, V. 66, 1961, p. 1509-1512.
- Fisher, D. E., "Ages of the Sikhote-Alin Iron Meteorite," *Science*, V. 139, No. 3556, 1963, p. 752-753.
- Fisher, D. E., "Potassium-Argon Ages of Iron Meteorites," Paper Presented at the American Physical Society, New York City, 23-26 Jan. 1963, p. 8.
- Fish, R. A., (See Goles, G. G., 1960)
- Folinsbee, R. E., (See Baagsgard, H., 1961)
- Fredriksson, K., (See Nagy, B., 1963)
- Fullan, E. F., (See Hemenway, C. L., 1961)
- Gast, P. W., "Alkali Metals in Stone Meteorites," *Geochimica et Cosmochimica Acta*, V. 19, 1960, p. 1-4.
- Gast, P. W., "Strontium and Rubidium in Stone Meteorites," Problems Related to Interplanetary Matter, National Academy of Science, National Research Council, Publication 845, 1961, p. 85-89.
- Giessen, B. C., and Grant, N. J., "Metallurgical Investigation of Sputnik 4 Fragment," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in American Geophysical Union. Transactions, V. 43, No. 4, Dec. 1962.
- Gneiss, J., and Goldberg, E. D., "Earth Science and Meteorites," North-Holland Publishing Company, Amsterdam, 1963, 312 pp.
- Goldberg, E. D., (See Gneiss, J., 1963)

Goles, G. G., Fish, R. A., and Anders, E., "The Record in Meteorites. I. The Former Environment of Stone Meteorites as Deduced from K_{40} , Al_{40} Ages," *Geochimica et Cosmochimica Acta*, V. 19, 1960, p. 177-195.

Goles, G. G., and Anders, E., "On the Geochemical Character of Iodine in Meteorites," *Journal of Geophysical Research*, V. 66, 1961, p. 3075-3077.

Goles, G. G., and Anders, E., "The Record in Meteorites 6. On the Chronology of the Solar System," *Journal of Geophysical Research*, V. 66, 1961, p. 889-898.

Goles, G. G., (See Anders, E., 1961)

Grant, N. J., (See Giessen, B. C., 1962)

Guskova, Y. G., (See Pochtarev, V. I., 1962)

Hara, T., and Sandell, E. B., "Meteoritic Abundance of Rutherfordium," *Geochimica et Cosmochimica Acta*, V. 21, 1960, p. 145-150.

Heide, F., "Meteorites," University of Chicago Press, Translated by E. Anders and F. DuFresne, 1963.

Hemenway, C. L., Fullan, E. F., and Phillips, L., "Nanometeorites," *Nature*, V. 190, 1961, p. 897-898.

Hess, D. C., (See Eberhardt, P., 1960)

Hess, D. C., and Marshall, R. R., "The Isotopic Compositions and Concentrations of Lead in Some Chondritic Stone Meteorites," *Geochimica et Cosmochimica Acta*, V. 20, 1960, p. 284-299.

Hess, D. C., (See Marshall, R. R., 1961)

Hey, M. H., (See Prior, G. T., 1953)

Hibbs, A. R., "The Distribution of Micrometeorites Near the Earth," *Journal of Geophysical Research*, V. 66, 1961, p. 371-377.

Hintenberger, H., (See Voshage, H., 1960)

Honda, M., (See Arnold, J. R., 1961)

Honda, M., (See Stauffer, H., 1961)

Honda, M., and Arnold, J. R., "Radioactive Species Produced by Cosmic Rays in the Aros Iron Meteorite," *Geochimica et Cosmochimica Acta*, V. 23, 1961, p. 219.

Honda, M., Shedlovsky, J. P., and Arnold, J. R., "Radioactive Species Produced by Cosmic Rays in Iron Meteorites," *Geochimica et Cosmochimica Acta*, V. 22, 1961, p. 133.

Honda, M., Umemoto, S., and Arnold, J. R., "Radioactive Species Produced by Cosmic Rays in Brucérheim and other Stone Meteorites," *Journal of Geophysical Research*, 7. 66, 1961, p. 3541-3546.

Huffaker, R. M., (See Adams, E. W., 1962)

Hughes, R. F., (See Whipple, F. L., 1955)

Hurst, M. E., (See Ehmann, W. D., 1961)

Isakovich, M. A., and Roi, N. A., "An Acoustical Method for the Measurement of the Mechanical Parameters of Meteorites," *Artificial Earth Satellites*, V. 2, 1960, p. 105-107.

Ivanov, K. G., "The Cause of Successive Changes of the Field or the Geomagnetic Effect of the Tunguska Meteorite," *Geomagnetism and Aeronomy*, V. 1, No. 4, 1961, 2 pp.

Jaeger, J. C., (See Lovering, J. F., 1960)

Jeffery, P. M., and Reynolds, J. H., "Origin of Excess Xe_{129} in Stone Meteorites," *Journal of Geophysical Research*, V. 66, 1961, p. 3582-3583.

Jenkins, R. J., (See Butler, C. P., 1963)

Kammerer, O. F., Davis, R., Finston, H. L., and Sadophy, J., "Chemical and Metallographic Studies of Sputnik 4 Fragments," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in *American Geophysical Union. Transactions*, V. 43, No. 4, Dec. 1962.

Kaye, J. H., (See Shedlovsky, J. P., 1962)

Kellogg, L. M., (See Zaslow, B., 1961)

Kigoshi, K., (See Reed, G. W., 1960)

Lal, D., (See Arnold, J. R., 1961)

Lapaz, J., (See Lapaz, L., 1961)

Lapaz, L., and Lapaz, J., "Space Nomads, Meteorites in Sky, Field and Laboratory," *Holiday House*, 1961.

Lasch, J. E., (See Schmidt, R. A., 1960)

LeFort, M., (See DuBost, H., 1963)

Lipschutz, M. E., and Anders, E., "The Record in the Meteorites - IV. Origin of Diamonds in Iron Meteorites," *Geochimica et Cosmochimica Acta*, V. 24, 1961, p. 83.

Lovering, J. F., Parry, L. G., and Jaeger, J. C., "Temperatures and Mass Losses in Iron Meteorites During Ablation in the Earth's Atmosphere," *Geochimica et Cosmochimica Acta*, V. 19, 1960, p. 156-167.

Lovering, J. F., (See Stacey, F. D., 1961)

Lowman, P. D., (See O'Keefe, J. A., 1961)

Lowman, P. D., (See O'Keefe, J. A., 1961)

MacNamara, J., and Thode, H. G., "Comparison of the Isotopic Constitution of Terrestrial and Meteoritic Sulphur," *Physical Review*, V. 78, 1950, p. 307-308.

Mamikunian, G., and Briggs, M. H., "A Catalog of Microstructures Observed in Carbonaceous Chondrites," California Institute of Technology, Jet Propulsion Laboratory, TR 32-399, 1963, 16 pp.

Mamikunian, G., (See Briggs, M. H., 1963)

Maringer, R. E., "Ablation Deposits on Iron Meteorites," *Geochimica et Cosmochimica Acta*, V. 19, 1960, p. 5-6.

Marshall, R. R., (See Hess, D. C., 1960)

Marshall, R. R., and Hess, D. C., "Lead from Troilite of the Toluca Iron Meteorite," *Geochimica et Cosmochimica Acta*, V. 21, 1961, p. 161.

Marvin, U. B., "Mineralogy of the Melted Portion of Sputnik 4," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in American Geophysical Union. Transactions, V. 43, No. 4, Dec. 1962.

Mason, B., "The Origin of Meteorites," *Journal of Geophysical Research*, V. 65, 1960, p. 2965-2970.

Mason, B., "Origin of Chondrules and Chondritic Meteorites," *Nature*, V. 186, 1960, p. 230-231.

Mason, B., and Wiik, H. G., "The Holbrook, Arizona Chondrite," *Geochimica et Cosmochimica Acta*, V. 21, 1961, p. 276.

Mason, B., and Wiik, H. G., "The Kyushu, Japan Chondrite," *Geochimica et Cosmochimica Acta*, V. 21, 1961, p. 272.

Mason, B., and Wiik, H. G., "The Miller, Arkansas Chondrite," *Geochimica et Cosmochimica Acta*, V. 21, 1961, p. 266.

Mason, B., and Wiik, H. B., "Composition of the Ottawa, Chateau-Renard, Moos, and New Concord Meteorites," *American Museum Novitates*, No. 2069, 1961.

Mason, B., "The Carbonaceous Chondrite," *Space Science Reviews*, V. 1, No. 4, 1963, p. 621-646.

Maxwell, J. A., (See Dawson, K. R., 1960)

Mayeda, T., (See Sarma, D. N., 1961)

Maynes, D., (See Duke, M. B., 1961)

Merrihue, C. M., "Excess Xenon 129 in Chondrules from the Bruderheim Meteorite," *Journal of Geophysical Research*, V. 68, No. 1, 1963, p. 325-330.

Milledge, H. J., "Coesite as an Inclusion in G.R.C. Synthetic Diamonds," *Nature*, V. 190, 1961, p. 1181.

Moore, C. B., "Researches on Meteorites," John Wiley and Sons, 1962.

Mosen, A. W., (See Schmidt, R. A., 1960)

Mueller, G., "The Properties and Theory of Genesis of the Carbonaceous Complex within the Cold Bokkevelt Meteorite," *Geochimica et Cosmochimica Acta*, V. 4, 1953, p. 1-10.

Murthy, V. R., "Isotropic Composition of Silver in an Iron Meteorite," *Physical Review*, V. 5, 1960, p. 539-540.

Nagy, B., (See Claus, G., 1961)

Nagy, B., Fredriksson, K., Urey, H. C., Claus, G., Anderson, C. A., and Percey, J., "Electron Probe Microanalysis of Organised Elements in the Orgueil Meteorite," *Nature*, V. 198, No. 4876, 1963, p. 121-125.

Nier, A. O., (See Singer, P., 1961)

Nininger, H. H., "Our Stone Pelted Planet," Houghton Mifflin. 1933.

Nininger, H. H., "Meteorite with Unique Features," *Science*, V. 139, No. 3552, 1963, p. 245-347.

O'Keefe, J. A., and Lowman, P. D., "New Investigations of the Alleged Meteorite from Igast, Estonia," NASA TN D-1151, 1961.

O'Keefe, J. A., and Lowman, P. D., "New Investigations of the Igast Meteorite," *Geochimica et Cosmochimica Acta*, V. 25, 1961, p. 158.

Olehy, D. A., (See Schmidt, R. A., 1960)

Parry, L. G., (See Lovering, J. F., 1960)

Parry, L. G., (See Stacey, F. D., 1961)

Parson, D. E., (See Dawson, K. R., 1960)

Peebles, P. J., and Dicke, R. H., "Cosmology and the Radioactive Decay Ages of Terrestrial Rocks and Meteorites," *Physical Review*, V. 128, Series 2, No. 3, 1962, p. 2006.

Percey, J., (See Nagy, B., 1963)

Pettersson, H., (See Dingle, H., 1961)

Phillips, L., (See Hemenway, C. L., 1961)

Pochtarev, V. I., and Guskova, Y. G., "The Magnetic Properties of Meteorites," *Geomagnetism and Aeronomy, USSR*, No. 4, 1962, 8 pp.

Prior, G. T., and Hey, M. H., "Catalogue of Meteorites," British Museum, London, 1953.

Ramdohr, P., "The Opaque Minerals in Stony Meteorites," *Journal of Geophysical Research*, V. 68, No. 7, 1963, p. 2011-2036.

Reed, G. W., Kigoshi, K., and Turkevich, A., "Determinations of Concentrations of Heavy Elements in Meteorites by Activation Analysis," *Geochimica et Cosmochimica Acta*, V. 20, 1960, p. 122-140.

Reed, G. W., "Heavy-Element Activation Analyses of Meteorites," *Problems Related to Interplanetary Matter*, National Academy of Science, National Research Council, Publication 845, 1961, p. 82-84.

Reiffel, L., "Erosion of Meteorites in Space and the Density of Interplanetary Gas," *Nature*, V. 185, 1960, p. 821-823.

Reynolds, J. H., (See Jeffery, P. M., 1961)

Reynolds, J. H., "Xenon in Stone Meteorites," *Problems Related to Interplanetary Matter*, National Academy of Science, National Research Council, Publication 845, 1961, p. 9-14.

Rinehart, J. S., "Meteorites and Ballistics," *Smithsonian Institution Astrophysical Observatory*, AFOSR-TN-58-354, AF 18(600)-1596, 1958, 66 pp., AD-154259.

Ringwood, A. E., "The Novo Urei Meteorite," *Geochimica et Cosmochimica Acta*, V. 20, 1960, p. 1-4.

Ringwood, A. E., "Silicon in the Metal Phase of Enstatite Chondrites," *Nature*, V. 186, 1960, p. 465-466.

Ringwood, A. E., "Cohenite as a Pressure Indicator in Iron Meteorites," *Geochimica et Cosmochimica Acta*, V. 20, 1960, p. 155-157.

Ringwood, A. E., "Chemical and Genetic Relationships Among Meteorites," *Geochimica et Cosmochimica Acta*, V. 24, 1961, p. 159.

Robey, D. H., "An Hypothesis on the Slow Moving Green Fireballs," *British Interplanetary Society. Journal*, V. 17, Sept.-Oct., 1960, p. 398-411.

Roi, N. A., (See Isakovich, M. A., 1960)

Rowe, M. W., and Van Dilla, M. A., "On the Radioactivity of the Bruderheim Chondrite," *Journal of Geophysical Research*, V. 66, 1961, p. 3553-3556.

Rushbrook, P. R., (See Ehmann, W. D., 1961)

Russell, J. A., "The Fireball of January 16, 1961," *Astronomical Society of the Pacific. Publications*, V. 72, 1961, p. 335.

Rutsch, W., (See Bieri, R. H., 1962)

Sadophy, J., (See Kammerer, O. F., 1962)

Sandell, E. B., (See Hara, T., 1960)

Sarma, D. N., and Mayeda, T., "Meteorite Analysis, the Search for Diamonds," *Geochimica et Cosmochimica Acta*, V. 22, 1961, p. 169.

Schaeffer, O. A., (See Fisher, D. E., 1960)

Schaeffer, O. A., (See Wanke, H., 1960)

Schaeffer, O. A., "Cosmic-Ray Ages of Iron Meteorites," *Problems Related to Interplanetary Matter*, National Academy of Science, National Research Council, Publication 845, 1961, p. 22-27.

Schindewolf, U., "Selenium and Tellurium Content of Stony Meteorites by Neutron Activation," *Geochimica et Cosmochimica Acta*, V. 19, 1960, p. 134-138.

Schmidt, R. A., Mosen, A. W., Suffredini, C. S., Lasch, J. E., Sharp, R. A., and Olehy, D. A., "Abundance of the Rare-Earth Elements, Lanthanum to Lutetium, in Chondritic Meteorites," *Nature*, V. 186, 1960, p. 863-866.

- Schmitt, R. A., and Smith, R. H., "Implications of Similarity in Rare-Earth Fractionation of Naklitric Metecrites and Terrestrial Basalts," *Nature*, V. 199, No. 4893, 1963, p. 550.
- Schwazer, D., (See Fireman, E. L., 1957)
- Sharp, R. A., (See Schmidt, R. A., 1960)
- Shedlovsky, J. P., and Kaye, J. H., "Radioactive Nuclides Produced by Cosmic Rays in Sputnik 4," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in American Geophysical Union. Transactions, V. 43, No. 1, Dec. 1962.
- Shedlovsky, J. P., (See Honda, M., 1961)
- Shima, M., and Thode, H. G., "The Sulfer Isotope Abundance in Abee and Bruderheim Meteorites," *Journal of Geophysical Research*, V. 66, 1961, p. 3580.
- Silberrad, R. A., "List of Indian Meteorites," *Mineralogical Magazine*, V. 23, 1932, p. 290-304.
- Singer, P., and Nier, A. O., "The Distribution of Rare Gases in Iron Meteorites," Problems Related to Interplanetary Matter, National Academy of Science, National Research Council, Publication 845, 1961, p. 31-44.
- Skinner, B. J., and Fahey, J. J., "Observations on the Inversion of Stishovite to Silica Glass," *Journal of Geophysical Research*, V. 68, No. 19, 1963, p. 5595-5604.
- Smith, R. H., (See Schmitt, R. A., 1963)
- Stacey, F. D., Lovering, J. F., and Parry, L. G., "Thermomagnetic Properties, Natural Magnetic Moments, and Magnetic Anisotropies of Some Chondritic Meteorites," *Journal of Geophysical Research*, V. 66, 1961, p. 1523, 1534.
- Stauffer, H., "Cosmogenic Argon and Neon in Stone Meteorites," *Journal of Geophysical Research*, V. 66, 1961, p. 1513-1522.
- Stauffer, H., "Primordial Argon and Neon in Carbonaceous Chondrites and Ureilites," *Geochimica et Cosmochimica Acta*, V. 24, 1961, p. 70.
- Stauffer, H., "Primordial Argon and Neon in Stone Meteorites," Problems Related to Interplanetary Matter, National Academy of Science, National Research Council, Publication 845, 1961, p. 15-21.
- Stauffer, H., and Honda, M., "Cosmic Ray Produced V_{50} and K_{40} in the Iron Meteorite Aros," *Journal of Geophysical Research*, V. 66, 1961, p. 3584-3586.

- Stevens, C., (See Anders, E., 1960)
- Suffredini, C. S., (See Schmidt, R. A., 1960)
- Tamers, M. A., "Low Concentration of Tritium in Iron Meteorites,"
Nature, V. 197, No. 4864, 1963, p. 276-277.
- Tamers, M. A., (See Tilles, D., 1963)
- Taylor, S. R., (See Ahrens, L. H., 1960)
- Thode, H. G., (See MacNamara, J., 1950)
- Thode, H. G., (See Clarke, W. B., 1961)
- Thode, H. G., (See Shima, M., 1961)
- Tilles, D., Fireman, E. L., and DeFelice, J., " H_3 and A_{37} in a Fragment of Sputnik 4," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in American Geophysical Union. Transactions, V. 43, No. 4, Dec. 1962.
- Tilles, D., and Tamers, M. A., "Tritium Retention in Iron Meteorites,"
Nature, V. 200, No. 4906, 1963, p. 563-565.
- Turkevich, A., (See Reed, G. W., 1960)
- Turkevich, A., "Chemical Analysis of Surfaces by Use of Large-Angle Scattering of Heavy Charged Particles," Science, V. 134, 1961, p. 672-274.
- Turkevich, A., "Cosmogenic Nuclides in the Hamlet Meteorite," Problems Related to Interplanetary Matter, National Academy of Sciences, National Research Council, Publication 845, 1961, p. 51-52.
- Uhlig, H. H., (See Feller-Kniepmeier, M., 1961)
- Umemoto, S., (See Honda, M., 1961)
- Urey, H. C., "Criticism of B. Mason's Paper, The Origin of Meteorites,"
Journal of Geophysical Research, V. 66, 1961, p. 1988-1991.
- Urey, H. C., (See Nagy, B., 1963)
- Van Dilla, M. A., (See Rowe, M. W., 1961)
- Van Dilla, M. A., (See Anderson, E. C., 1962)

Vilczek, E., and Wanke, H., "Das Strahlungsalter der Eisenmeteorite aus Chlor-36-Messungen (The Exposure Age of the Iron Meteorites from ^{36}Cl Measurements)," *Zeitschrift Naturforschung*, V. 16A, No. 4, 1961, p. 379-384.

Vinogradov, A. P., "Isotopic Composition of Sulphur in Meteorites and in the Earth," *Radio Isotopes in Scientific Research*, Pergamon Press, V. 11, 1958, p. 581-591.

Vinogradov, A. P., Dontsova, E. I., and Chupakhin, M. S., "Isotopic Ratios of Oxygen in Meteorites and Igneous Rocks," *Geochimica et Cosmochimica Acta*, V. 18, 1960, p. 278-293.

Yoshida, H., and Hintenberger, H., "Calculation of Cosmic-Ray Ages in the Iron Meteorites - Carbo and Treysa," *Nature*, V. 185, 1960, p. 88-89.

Wanke, H., and Schaeffer, O. A., "Exposure Ages for Iron Meteorites," *Nature*, V. 188, 1960, p. 1101-1102.

Wanke, H., (See Vilczek, E., 1961)

Wasson, J. T., "Radioactivity in Sputnik 4 Fragment," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in *American Geophysical Union. Transactions*, V. 43, No. 4, Dec. 1962.

Whipple, F. L., and Hughes, R. F., "On the Velocities and Orbits of Meteors, Fireballs, and Meteorites," *Atmospheric and Terrestrial Physics. Journal*, Special Supplement, V. 2, 1955, p. 149-156.

Whipple, F. L., "Meteorite Risk to Space Vehicles," *ARS Preprint*, No. 499-57, Oct. 1957.

Wiik, H. B., "The Chemical Composition of Some Stony Meteorites," *Geochimica et Cosmochimica Acta*, V. 9, 1956, p. 455-464.

Wiik, H. G., (See Mason, B., 1961)

Wiik, H. G., (See Mason, B., 1961)

Wiik, H. G., (See Mason, B., 1961)

Wiik, H. B., (See Mason, B., 1961)

Winer, D. E., "A Review of Extraterrestrial Matter," *Institute of Environmental Sciences. Proceedings*, 1961, p. 455-464.

Wood, J. A., "Stony Meteorite Orbits," Royal Astronomical Society.
Monthly Notices, V. 122, 1961, p. 79-88.

Zaslow, B., and Kellogg, L. M., "The Analysis of Metallic Spheroids
from Meteor Crater, Arizona," *Geochimica et Cosmochimica Acta*, V. 24,
1961, p. 315.

TEKTITES

Adler, I., (See Chao, E. C., 1962)

Anders, E., (See Viste, E., 1962)

Anonymous, "The Origin of Tektites," British Astronomical Association Journal, V. 71, 1961, p. 104.

Baker, G., "The Flanges of Australites (Tektites)," Memoirs of the National Museum, Victoria, V. 14, Pt. 1, 1944, p. 7-22.

Baker, G., "Curvature-Size Relationships of Port Campbell Australites, Victoria," Royal Society of Victoria. Proceedings, V. 67, 1955, p. 165-219.

Baker, G., "Nirranda Strewnfield Australites, South-east of Warnambool, Western Victoria," Memoirs of the National Museum, Victoria, V. 20, 1956, p. 59-172.

Baker, G., "The Role of Aerodynamical Phenomena in Shaping and Sculpturing Australian Tektites," American Journal of Science, V. 256, 1958, p. 369-383.

Baker, G., "Tektites," Memoirs of the National Museum, Victoria, V. 23, 1959, p. 1-313.

Baker, G., "Origin of Tektites," Nature, V. 185, 1960, p. 291-294.

Baker, G., "Volumenbeziehungen Von Wohlerhaltenen Australit-Knopfen, -Linsen, und -kernen Zu Ihren Primaren Formen," Chem. Erde, V. 21(3-4), 1962, p. 269-320.

Baker, G., "The Largest Known Australite and Three Smaller Specimens from Warralakin, Western Australia," Royal Society of Western Australia. Journal, V. 45, Pt. 1, 1962, p. 12-17.

Barnes, V. E., "North American Tektites," University of Texas Publications, Contributions to Geology, Pt. 2, 1939, p. 477-582.

Barnes, V. E., "Significance of Inhomogeneity in Tektites," Report of the International Geological Congress, 21st Session, Norden, Copenhagen, Denmark, Pt. 2, 1960, p. 323-338.

Barnes, V. E., "A World Wide Geological Investigation of Tektites," Geotimes, V. 6, No. 2, 1961, p. 8-12, 38.

Barnes, V. E., "Tektites," *Scientific American*, V. 205, No. 5, 1961, p. 36, 58-64.

Barnes, V. E., "Tektites - Original Surfaces Preserved Beneath Flanges, Rayed Bubbles, and Reoriented Strain," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in *American Geophysical Union. Transactions*, V. 43, No. 4, Dec. 1962.

Beck, R., "Über Die in Tektiten Eingeschlossenen Gase," *Zhurnal Deut. Geol. Ges.*, V. 62, 1910, p. 242-245.

Beyer, H., "Philippine Tektites and the Tektite Problem in General," *Smithsonian Institute Annual Report*, 1942, p. 253-259.

Cassidy, W. A., "Australite Investigations and Their Bearing on the Tektite Problem," *Meteoritics*, V. 1, No. 4, 1956, p. 426-437.

Chao, E. C., Adler, I., Dwornik, E. J., and Littler, J., "Metallic Spherules in Tektites from Isabela, Philippine Islands," *Science*, V. 135, 1962, p. 97-98.

Chapman, D. R., "Recent Re-entry Research and the Cosmic Origin of Tektites," *Nature*, V. 188, 1960, p. 353-355.

Cherry, R. D., Taylor, S. R., and Sachs, M., "Major Element Relationships in Tektites," *Nature*, V. 187, 1960, p. 680-681.

Cherry, R. D., and Taylor, S. R., "Studies of Tektite Composition - Derivation from a Quartz-Shale Mixture," *Geochimica et Cosmochimica Acta*, V. 22, 1961, p. 164.

Cherry, R. D., (See Taylor, S. R., 1961)

Cohen, A. J., "The Absorption Spectra of Tektites and other Natural Glasses," *Geochimica et Cosmochimica Acta*, V. 14, 1958, p. 279-286.

Cohen, A. J., "Trace Element Relationships and Terrestrial Origin of Tektites," *Nature*, V. 188, 1960, p. 653-654.

Cohen, A. J., "A Semiquantitative Asteroid Impact Hypothesis of Tektite Origin," Abstract in *Journal of Geophysical Research*, V. 66, No. 8, 1961, p. 2521.

Cutilla, F., (See Thorpe, A. N., 1963)

Dunning, K. A., (See O'Keefe, J. A., 1962)

Dwornik, E. J., (See Chao, E. C., 1962)

Ehmann, W. D., "Nickel in Tektites by Activation Analysis," *Geochimica et Cosmochimica Acta*, V. 19, 1960, p. 149-155.

Epstein, S., (See Taylor, H. P., 1962)

Fenner, C., "Australites, 1, Classification of the W. H. C. Shaw Collection," *Royal Society of South Australia. Transactions*, V. 58, 1934, p. 62-79.

Fenner, C., "Australites, 3, A Contribution to the Problem of the Origin of Tektites," *Royal Society of South Australia. Transactions*, V. 62, 1938, p. 192-216.

Friedman, I., "The Water, Deuterium, Gas, and Uranium Content of Tektites," *Geochimica et Cosmochimica Acta*, V. 14, 1958, p. 316-322.

Friedman, I., Thorpe, A., and Senftle, F. E., "Comparison of the Chemical Composition and Magnetic Properties of Tektites and Glasses Formed by Fusion of Terrestrial Rocks," *Nature*, V. 187, 1960, p. 1089-1092.

Gentner, W., and Zahringer, J., "Das Kalium-Argon-Alter Von Tektiten," *Zhurnal Naturforsch.*, V. 152, No. 2, 1960, p. 93-99.

Gentner, W., Lippolt, H. J., and Schaeffer, O. A., "Kalium-Argon-Alter der Glaser Des Nordlinger Rieses und Der Bohmischmährischen Tektite," *Max-Planck-Institute, Kernphysik Report*, 1962.

Grant, K., "Obsidiantites. Their Origin from a Physical Standpoint," *Royal Society of Victoria. Proceedings*, V. 21, No. 2, 1909, p. 444-448.

Hardcastle, H., "The Origin of Australites. Plastic Sweepings of a Meteorite," *New Zealand Journal of Science and Technology*, V. 8, No. 2, 1926, p. 65-75.

Hawkins, G. S., "Tektites and the Earth," *Nature*, V. 185, 1960, p. 300-301.

Hawkins, G. S., Wolfson, S. H., and Lovering, J. F., "Origin of Tektites," *Nature*, V. 186, 1960, p. 1027-1030.

Hawkins, G. S., "A Study of Tektites," *Journal of Geophysical Research*, V. 68, No. 3, 1963, p. 895-910.

Kohman, T. P., "Are Tektites Extra-Solar-System Meteorites," *Nature*, V. 182, 1958, p. 252-253.

Krinov, E. L., "Some Considerations on Tektites," *Geochimica et Cosmochimica Acta*, V. 14, 1958, p. 259-266.

- LaCroix, A., "Les Tectiles sans Formes Figurees de l'Indochine," Academy of Science. Proceedings, Paris, 1935.
- Linck, G. "Oberfläche und Herkunft der Meteorischen Glaser (Tektite)," Neues Jahrd. Mineral., 57 Beilage-Band, Abt. A, 1928, p. 223-236.
- Lippolt, H. J., (See Gentner, W., 1962)
- Littler, J., (See Chao, E. C., 1962)
- Lovering, J. F., (See Hawkins, G. S., 1960)
- Lowman, R. D., (See O'Keefe, J. A., 1962)
- Lyttleton, R. A., "A Cometary Mechanism for the Formation of Tektites," Royal Society. Proceedings, Series A, V. 272, No. 1351, 1963, p. 467-480.
- Moore, E. S., "Pelees Tears and Their Bearing on the Origin of Australites," Geological Society of America. Bulletin, V. 27, 1916, p. 51-55.
- Nininger, H. H., "The Moon as a Source of Tektites," Sky and Telescope, V. 2, No. 4, 1943, p. 12-15.
- Nininger, H. H., "The Moon as a Source of Tektites," Sky and Telescope, V. 2, No. 5, 1943, p. 8-9.
- Nininger, H. H., "Indo-Chinites in South Vietnam," Arizona Academy of Science. Journal, V. 1, 1961, p. 123-134.
- O'Keefe, J. A., "The Origin of Tektites," Space Research, Proceedings of the International Space Science Symposium, 1st, Nice, North-Holland Publishing Company, Amsterdam, 1960, p. 1080-1105.
- O'Keefe, J. A., "The Origin of Tektites," NASA TN D-490, 1960, 26 pp.
- O'Keefe, J. A., and Shute, B., "Tektites and Natural Satellites of the Earth," IAS, Annual Meeting, 29th, New York, Jan. 23-25, 1961, Paper 61-78, 13 pp.
- O'Keefe, J. A., "Tektites and the Cyrilled Shower," Sky and Telescope, V. 21, 1961, p. 4-8.
- O'Keefe, J. A. "Tektites as Natural Earth Satellites," Science, V. 133, 1961, p. 562-566.
- O'Keefe, J. A., "The Cometary Theory of Tektite Origin," Astronomical Journal, V. 66, 1961, p. 292.

O'Keefe, J. A., Dunning, K. A., and Lowman, R. D., "Neon in Tektite Bubbles," Abstract of Paper Presented at the 110th Meeting of the American Astronomical Society, April 1-4, 1962, at Cambridge, Massachusetts, in *Astronomical Journal*, V. 67, No. 5, 1962, p. 267-286.

O'Keefe, J. A., "Significance of Tektite Sculpturing," Abstract of Paper Presented at the 113th Meeting of the American Astronomical Society, 17-20 April 1963, at the Kitt Peak National Observatory, University of Arizona, Tucson, Arizona, in *Astronomical Journal*, V. 68, No. 5, 1963, p. 271-301.

O'Keefe, J. A., "Tektites," University of Chicago Press, 1963.

Olte, A., and Siegel, K. M., "Distinction Between the Electromagnetic Constants of Tektites and Libyan Desert Glass and their Effect on Lunar Surface Theory," *The Astrophysical Journal*, V. 133, No. 2, 1961, p. 706-717.

Pinson, W. H., "Chemical and Physical Studies of Tektites," Massachusetts Institute of Technology Report, AFCPL-62-221, 1962.

Reynolds, J. H., "Rare Gases in Tektites," *Geochimica et Cosmochimica Acta*, V. 20, 1960, p. 101-115.

Sachs, M., (See Cherry, R. D., 1960)

Sachs, M., (See Taylor, S. R., 1961)

Sachs, M., (See Taylor, S. R., 1961)

Schaeffer, O. A., (See Gentner, W., 1962)

Senftle, F. E., (See Friedman, I., 1960)

Senftle, F. E., (See Thorpe, A. N., 1963)

Shute, B., (See O'Keefe, J. A., 1961)

Siegel, K. M., (See Olte, A., 1961)

Spencer, L. J., "Origin of Tektites," *Nature*, V. 131, 1933, p. 117-118.

Spencer, L. J., "Origin of Tektites," *Nature*, V. 132, 1933, p. 571.

Stair, R., "Tektites and the Lost Planet," *Smithsonian Institute Annual Report*, 1954, p. 217-230.

Stelzner, A. W., "Über Eigentümliche Obsidian-Bomben Aus Australia," *Zhurnal Deut. Geol. Ges.*, V. 45, 1893, p. 299-319.

Suess, H. W., "Gas Content and Age of Tektites," *Geochimica et Cosmochimica Acta*, V. 2, 1951, p. 76-79.

Sun, M. S., "An Artificial Tektite," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in *American Geophysical Union. Transactions*, V. 43, No. 4, Dec. 1962.

Taylor, S. R., (See Cherry, R. D., 1960)

Taylor, S. R., "Abundance and Distribution of Alkali Elements in Australites," *Geochimica et Cosmochimica Acta*, V. 25, 1960, p. 85-100.

Taylor, S. R., and Sachs, M., "Trace Elements in Australites," *Nature*, V. 188, 1960, p. 387-388.

Taylor, S. R., (See Cherry, R. D., 1961)

Taylor, S. R., Sachs, M., and Cherry, R. D., "Studies of Tektite Composition - I. Inverse Relationship between SiO₂ and the Other Major Constituents," *Geochimica et Cosmochimica Acta*, V. 22, 1961, p. 155.

Taylor, S. R., and Sachs, M., "Abundance and Distribution of Alkali Elements in Victorian Australites," *Geochimica et Cosmochimica Acta*, V. 25, 1961, p. 223.

Taylor, S. R., "Distillation of Alkali Elements During Formation of Australite Flanges," *Nature*, V. 189, 1961, p. 630-633.

Taylor, H. P., and Epstein, S., "Oxygen Isotope Studies on the Origin of Tektites," *Journal of Geophysical Research*, V. 67, No. 11, 1962, p. 4485-4490.

Thorpe, A., (See Friedman, I., 1960)

Thorpe, A. N., Senftle, F. E., and Cuttilla, F., "Magnetic and Chemical Investigations of Iron in Tektites," *Nature*, V. 197, No. 4870, 1963, p. 836-840.

Urey, H. C., "On the Origin of Tektites," *National Academy of Sciences. Proceedings*, V. 41, No. 1, 1955, p. 27-31.

Urey, H. C., "The Origin of Tektites," *Nature*, V. 179, 1957, p. 556-557.

Urey, H. C., "Origin of Tektites," *Nature*, V. 187, 1960, p. 855-857.

Urey, H. C., "Origin of Tektites," *Science*, V. 137, 1962, p. 746-747.

Urey, H. C., "Cometary Collisions and Tektites," *Nature*, V. 197, No. 4864, 1963, p. 228-230.

- Varsarsky, C. M., "Dynamical Limits on a Lunar Origin for Tektites," *Geochimica et Cosmochimica Acta*, V. 14, No. 4, 1958, p. 291-303.
- Viste, E., and Anders, E., "Cosmic-Ray Exposure History of Tektites," *Journal of Geophysical Research*, V. 67, 1962, p. 2913-2919.
- Von Koenigswald, G. H., "Tektite Studies," *Koninkl. Ned. Akad. Wetenschap. Proc.*, V. 63, 1960, p. 135-153.
- Vorobev, G. G., "The Riddle of Tektites," *International Geology Review*, V. 3, No. 3, 1961, p. 227-229.
- Walcott, R. H., "The Occurrence of So-called Obsidian Bombs in Australia," *Royal Society of Victoria. Proceedings*, V. 11, Pt. 1, 1898, p. 23-53.
- Whitten, E. T., "Average Composition of Granites, The Genesis of Tektites, and Petrogenesis," *Nature*, V. 187, 1960, p. 867-868.
- Wolfson, S. H., (See Hawkins, G. S., 1960)
- Zahringer, J., (See Gentner, W., 1960)

1/2
FRAMES

V. CRATERING

LABORATORY CRATERING PHENOMENA

Anonymous, "Study of Hypervelocity Impact of Particles on Materials," North American Aviation, Final Summary Report MD-59-114, 1960, 35 pp.

Bell, J. F., "Study of Initial Conditions in Constant Velocity Impact," Applied Physics. Journal, V. 31, 1960, p. 2188-2195.

Birkoff, G., MacDougall, D. P., Pugh, E. M., and Taylor, G., "Explosives with Lined Cavities," Applied Physics. Journal, V. 19, 1948, p. 563-581

Bjork, R. L., (See Brode, H. L., 1961)

Bollag, F., (See Wehner, G., 1958)

Brode, H. L., and Bjork, R. L., "Cratering from a Megaton Surface Burst," U. S. Office of the Secretary of Defense, Research and Engineering Bulletin 29, Shock, Vibration and Associated Environments. Part III, July 1961, p. 1-29.

Charters, A. C., and Locke, G. S., "A Preliminary Investigation of High-Speed Impact. The Penetration of Small Spheres into Thick Copper Targets," NACA RM-A58B26, May 1958. (Confidential)

Charters, A. C., "High-Speed Impacts," Scientific American, V. 203, No. 4, 1960, p. 128-131, 135-140.

Clay, W. G., (See Partridge, W. S., 1958)

Collins, R. D., (See Kinrad, W. H., 1961)

Cook, M. A., "Mechanism of Cratering in Ultra-High Velocity Impact," AFOSR-TN-486, AF-18(603)-100, July 1957.

Darton, N. H., "Explosion Craters," Scientific Monthly, V. 3, 1916, p. 417-430.

Davids, N., (See Huang, Y. K., 1963)

DeCarli, P. S., and Jamieson, J. C., "Formation of Diamond by Explosive Shock," Science, V. 133, 1961, p. 1821-1822.

Eichelberger, R. J., "Experimental Test of the Theory of Penetration by Metallic Jets," Applied Physics. Journal, V. 27, 1956, p. 63.

- Fuchs, O. P., "Impact Phenomena," AIAA Journal, V. 1, No. 9, 1963, p. 2124-2126.
- Gault, D. E., (See Moore, H. J., 1962)
- Gehring, J. W., (See Kineke, J. H., 1957)
- Glasstone, S. (Editor), "The Effects of Nuclear Weapons," U. S. Atomic Energy Commission, AFP-136-1-3, Washington, D. C., 1962, 579 pp.
- Hansen, W. R., and Lemke, R. W., "Geology of the U.S.G.S. and Rainier Tunnel Areas, Nevada Test Site," U. S. Geological Survey, Openfile Report, 1959, 111 pp.
- Harris, R., "A Study of Terminal Ballistic Effects of Hyper-Velocity Aluminum Fragments Against Aircraft," Ballistic Research Laboratories, Technical Note No. 1150, 1957. (Confidential)
- Hess, W. N., and Nordyke, M. D., "Throwout Calculation for Explosion Craters," Journal of Geophysical Research, V. 66, No. 10, 1961, p. 3405.
- Hoenig, S. A., "Acceleration of Dust Particles by Shock Waves," Applied Physics. Journal, V. 28, 1957, p. 1218.
- Huang, Y. K., and Davids, N., "Shock Dynamics of Hypervelocity Impact of Metals," Franklin Institute. Journal, V. 276, No. 1, 1963, p. 39-50.
- Jamieson, J. C., (See DeCarli, P. S., 1961)
- Johnson, G. W., and Violet, C. E., "Phenomenology of Contained Nuclear Explosions," University of California, Lawrence Radiation Laboratory, Report 5124, 1958, 27 pp.
- Kineke, H. J., and Gehring, J. W., "Preliminary Investigation of Simulated Micro-Meteorite Impact," Ballistic Research Laboratories, Technical Note No. 1134, 1957.
- Kinrad, W. H., and Collins, R. D., "An Investigation of High-Velocity Impact Cratering into Nonmetallic Targets and Correlation of Penetration Data for Metallic and Nonmetallic Targets," NASA TN D-726, 1961, 31 pp.
- Lemke, R. W., (See Hansen, W. R., 1959)
- Locke, G. S., (See Charters, A. C., 1958)
- MacCormack, R. W., (See Moore, H. J., 1962)
- MacDougall, D. P., (See Birkoff, G., 1948)

Maurer, W. C., and Rinehart, J. S., "Impact Crater Formation in Rock," Hypervelocity Impact, Fourth Symposium, Eglin AFB, Florida, V. 32, 1960, 20 pp.

Moore, H. J., Gault, D. E., and MacCormack, R. W., "Fluid Impact Craters and Hypervelocity-High Velocity Impact Experiments in Metals and Rocks," Abstract of Paper Presented at the Second Western National Meeting Program, Dec. 27-29, 1962, Stanford University, Stanford, California, in American Geophysical Union. Transactions, V. 43, No. 4, Dec. 1962.

Nask, J., (See Wehner, G., 1958)

Nordyke, M. D., (See Hess, W. N., 1961)

Partridge, W. S., Van Fleet, H. B., Whited, C. R., "Crater Formation in Metallic Targets," Applied Physics. Journal, V. 29, No. 9, 1958, p. 1332-1336.

Partridge, W. S., and Van Fleet, H. B., "Similarities Between Lunar and High-Velocity Impact Craters," Astrophysical Journal, V. 128, No. 2, 1958, p. 416-419.

Partridge, W. S., and Clay, W. G., "Studies of High-Velocity Impact in Wax," Applied Physics. Journal, V. 29, No. 6, 1958, p. 939-942.

Partridge, W. S., (See Van Fleet, H. B., 1958)

Pohl, R., (See Wehner, G., 1958)

Pugh, E. M., (See Birkoff, G., 1948)

Rinehart, J. S., "Some Observations on High-Speed Impact," Meteoritical Society. Contributions, V. 4, 1950, p. 299-305.

Rinehart, J. S., (See Maurer, W. C., 1960)

Riney, T. D., "Pic Formulation of Visco-Plastic Model for Hypervelocity Impact," Quarterly Progress Report No. 5, General Electric Space Sciences Laboratory, APGC-TDR-62-24, AF 08(635)-1713, 1962, p. 47.

Rostoker, N., "The Formation of Craters by High-Speed Particles," Meteoritics, V. 1, 1953, p. 11-27.

Scully, C. N., "High-Velocity Impact Studies," Lunar and Planetary Exploration Colloquium. Proceedings, V. 1, No. 4, 1959, p. 23-25.

Taylor, G., (See Birkoff, G., 1948)

Torgeson, W., (See Wehner, G., 1958)

Van Fleet, H. B., (See Partridge, W. S., 1958)

Van Fleet, H. B., (See Partridge, W. S., 1958)

Van Fleet, H. B., Whited, C. R., and Partridge, W. S., "High Velocity Impact Craters in Lead-Tin Alloys." University of Utah, AFOSR-TN-58-28, AF 18(600)-1217, 1958, 46 pp.

Violet, C. E., (See Johnson, G. W., 1958)

Wehner, G., Whitnak, G., Nask, J., Bollag, F., Pohl, R., Torgeson, W., and Zeller, H., "Research on the Effects of Collisions of Small Particles with Bodies Moving at Hypersonic Speeds," WADC-TR-58-598, July 1958, AD-155894.

Whited, C. R., (See Partridge, W. S., 1958)

Whited, C. R., (See Van Fleet, H. B., 1958)

Whitnak, G., (See Wehner, G., 1958)

Zeller, H., (See Wehner, G., 1958)

_____, "Proceedings of the Second Hyper-Velocity and Impact Symposium," V. 1 (Unclassified) and V. 2 (Secret), Sponsored by U. S. Naval Research Laboratory and the Air Research and Development Command, Dec. 1957.

METEORITE CRATERING AND ASSOCIATED PHENOMENA

Albritton, C. C., (See Boon, J. D., 1937)

Albritton, C. C., (See Boon, J. D., 1938)

Ananthakrishnan, R., "Anomalies in the Light Curves of Meteors Resulting from Fragmentation," *Nature*, V. 190, 1961, p. 896-897.

Barringer, D. M., "Coon Mountain and its Crater," *National Academy of Sciences, Philadelphia Proceedings*, V. 57, 1905, p. 861-886.

Barringer, D. M., "Meteor Crater (Formerly Called Coon Mountain or Coon Butte) in Northern Central Arizona," Published by the Author, 1910, 24 pp.

Barringer, D. M., "Further Notes on Meteor Crater, Arizona," *National Academy of Sciences, Philadelphia Proceedings*, V. 66, 1914, p. 556-565.

Barringer, D. M., "Further Notes on Meteor Crater in Northern Central Arizona (No. 2)," *National Academy of Sciences, Philadelphia Proceedings*, V. 76, 1924, p. 275-278.

Barringer, D. M., "The Most Fascinating Spot on Earth (Meteor Crater - Arizona)," *Scientific American*, V. 127, 1927, p. 52-54, 144-146, 244-246.

Beard, D. B., "On Meteoritic Impact," *General Research in Flight Sciences*, Jan. 1959-Jan. 1960, V. 1, Pt. 2, Fluid Mechanics, Lockheed Aircraft Corporation, LMSD-288-139, V. 1, Pt. 2, Jan. 1960.

Beils, C. S., (See Dence, M. R., 1963)

Bjork, R. L., "Analysis of the Formation of Meteor Crater, Arizona, A Preliminary Report," *Journal of Geophysical Research*, V. 66, 1961, p. 3379-3388.

Bohn, J. L., Fuchs, O. P., et al., "Research Directed Towards the Study of Transducing Meteoric Impacts," Final Report, Temple University, Philadelphia, Pennsylvania, Physics Department, Dec. 1960, 92 pp., AD-249949.

Boon, J. D., "The Impact of Meteors," *Field and Laboratory*, V. 4, 1936, p. 56-59.

Boon, J. D., and Albritton, C. C., "Meteorite Scars in Ancient Rocks," *Field and Laboratory*, V. 5, 1937, p. 53-64.

Boon, J. D., and Albritton, C. C., "The Impact of Large Meteorites," Field and Laboratory, V. 6, 1938, p. 57-64.

Bunch, T. E., (See Cohen, A. J., 1961)

Chao, E. T., Shoemaker, E. M., and Madsen, B. M., "First Natural Occurrence of Coesite," Science, V. 132, 1960, p. 220-222.

Chao, E. T., Fahey, J. J., and Littler, J., "Coesite From Wabar Crater near Al Hadida, Arabia," Science, V. 133, 1961, p. 882-883.

Chao, E. T., (See Shoemaker, E. M., 1961)

Cohen, A. J., Bunch, T. E., and Reid, A. M., "Coesite Discoveries Establish Cryptovolcanics as Fossil Meteorite Craters," Science, V. 134, 1961, p. 1624-1625.

Currie, K. L., and Dence, M. R., "Rock Deformation in the Rim of the New Quebec Crater, Canada," Nature, V. 198, No. 4875, 1963, p. 80.

Dachille, F., "Axis Changes in the Earth from Large Meteorite Collisions," Nature, V. 198, No. 4876, 1963, p. 176.

Dachille, F., (See Gallant, R., 1963)

Daly, J. W., (See Jakosky, J. J., 1932)

Darton, N. H., "Crater Mound, Arizona," Geological Society of America. Bulletin, V. 56, 1945, p. 1154.

Dence, M. R., (See Currie, K. L., 1963)

Dence, M. R., Innes, M. S., and Beils, C. S., "On the Probable Meteorite Origin of the Clearwater Lakes, Quebec," Abstract of Paper Presented at the 114th Meeting of the American Astronomical Society, 22-24 July 1963, in Astronomical Journal, V. 68, No. 8, 1963, p. 533-547.

Dietz, R. S., "Meteorite Impact Suggested by Shatter Cones in Rock," Science, V. 131, 1960, p. 1781-1784.

Dietz, R. S., "Vredefort Ring Structure, Meteorite Impact Scar," Journal of Geology, V. 69, 1961, p. 416-499.

Dietz, R. S., (See Gallant, R. C., 1963)

Dubin, M., "Meteoric Bombardment," in Scientific Uses of Earth Satellites, Edited by S. A., Van Allen, University of Michigan Press, 1956, p. 292-300.

Escher, B. G., "Three Caldera-Shaped Accidents - Volcanic Calderas, Meteoric Scars and Lunar Cirques," Bulletin Volcanologique (Union Geoesique et Geophysique Internationale, Association de Volcanologie), V. 38, No. 4, 1949, p. 749-752.

Evans, G. L., (See Sellards, E. H., 1941)

Fahey, J. J., (See Chao, E. T., 1961)

Fairchild, H. L., "Nature and Fate of the Meteor Crater Bolide," Science, V. 72, 1930, p. 463-467.

Foster, G. E., "The Barringer (Arizona) Meteorite Crater," Meteor Crater, Arizona, 1957, 31 pp.

Fuchs, O. P., (See Bohn, J. L., 1960)

Gallant, R. C., and Dietz, R. S., "Meteorite Impacts, Lunar Maria, Lopoliths, and Ocean Basins," Nature, V. 197, No. 4862, 1963, p. 38-40.

Gallant, R., and Dachille, F., "Changes in the Earth's Axis Due to Large Meteorite Collisions," Nature, V. 200, No. 4905, 1963, p. 414-416.

Gilvarry, J. J., (See Hill, J. E., 1956)

Gilvarry, J. J., and Hill, J. E., "The Impact of Large Meteorites," Astrophysical Journal, V. 124, 1956, p. 610-622.

Hager, D., "Crater Mound (Meteor Crater), Arizona, A Geologic Feature," American Association of Petroleum Geologists. Bulletin, V. 37, 1953, p. 821-857.

Hansen, C. F., "The Erosion of Meteors and High-Speed Vehicles in the Upper Atmosphere," NASA TN-3962, 1957, 38 pp.

Hardy, C. T., "Structural Dissimilarity of Meteor Crater and Odessa Meteorite Crater," American Association of Petroleum Geologists. Bulletin, V. 37, 1953, p. 2580.

Hawkins, G. S., "Impacts on the Earth and Moon," Nature, V. 197, No. 4869, 1963, p. 781.

Hill, J. E., and Gilvarry, J. J., "Application of the Baldwin Crater Relation to the Scaling of Explosion Craters," Journal of Geophysical Research, V. 61, 1956, p. 501-511.

Hill, J. E., (See Gilvarry, J. J., 1956)

Innes, M. S., "The Use of Gravity Methods to Study the Underground Structure and Impact Energy of Meteorite Craters," *Journal of Geophysical Research*, V. 66, 1961, p. 2225-2239.

Imes, M. S., (See Dence, M. R., 1963)

Jakosky, J. J., Wilson, C. H., and Daly, J. W., "Geophysical Examination of Meteor Crater, Arizona," *American Institute of Mining and Metallurgical Engineering, Geophysical Prospecting*, 1932, p. 1-35.

Johnson, G. W., "Note on Estimating the Energies of the Arizona and Ungava Meteorite Craters," *University of California, Lawrence Radiation Laboratory, UCRL-6227*, 1960, 19 pp.

Kornhauser, M., "Prediction of Cratering, Caused by Meteoroid Impacts," *Astronautical Science. Journal*, V. 5, 1958, p. 58-63.

Littler, J., (See Chao, E. T., 1961)

Madsen, B. M., (See Chao, E. T., 1960)

Merrill, G. P., "The Meteor Crater of Canyon Diablo, Arizona, its History, Origin, and Associated Meteoritic Irons," *Smithsonian Institute. Miscellaneous Collections*, V. 50, 1908, p. 461-498.

Meyerhoff, H., "Meeting of the Southwestern Division of the AAAS," *Science*, V. 111, 1950, p. 679-680.

Nininger, H. H., "Oxidation Studies at Barringer Crater, Metal-Center Pellets and Oxide Droplets," *American Philosophical Society, Yearbook*, 1949, p. 126-139.

Nininger, H. H., "Structure and Composition of Canyon Diablo Meteorites as Related to Zonal Distribution of Fragments," *Popular Astronomy*, V. 58, 1950, p. 169-173.

Nininger, H. H., "Condensation Globules at Meteor Crater," *Science*, V. 113, 1951, p. 755-756.

Nininger, H. H., "A Resume of Researches at the Arizona Meteorite Crater," *Scientific Monthly*, V. 72, 1951, p. 75-86.

Nininger, H. H., "Impactite Slag at Barringer Crater," *American Journal of Science*, V. 252, 1954, p. 277-290.

Nininger, H. H., "Arizona's Meteorite Crater," *World Press*, 1956.

Opik, E. J., "Meteor Impact on Solid Surface," *Irish Astronomical Journal*, V. 5, 1958, p. 14-33.

- Pecora, W. T., "Coesite Craters and Space Geology," *Geotimes*, V. 4, 1960, p. 16-19, 32.
- Reid, A. M., (See Cohen, A. J., 1961)
- Richter, N., "Lunar Crater Structures on Earth," *Geofisica Pura E Applicata*, V. 20, 1951, p. 15-23. (German)
- Riggs, F. B., (See Whipple, F. L., 1960)
- Rinehart, J. S., "Distribution of Meteoritic Debris about the Arizona Meteorite Crater," *Smithsonian Institution Contributions to Astrophysics*, V. 2, 1958, p. 145-160.
- Rogers, A. F., "A Unique Occurrence of Lechatellierite or Silica Glass," *American Journal of Science*, 5th Series, V. 19, 1930, p. 195-202.
- Sellards, E. H., and Evans, G. L., "Statement of Progress of Investigation at Odessa Meteor Craters," *Texas University, Bureau of Economic Geology*, 1941, 13 pp.
- Shoemaker, E. M., (See Chao, E. T., 1960)
- Shoemaker, E. M., "Penetration Mechanics of High Velocity Meteorites, Illustrated by Meteor Crater, Arizona," 21 International Geological Congress Report, Pt. 18, 1960, p. 418-434.
- Shoemaker, E. M., and Chao, E. T., "New Evidence for the Impact Origin of the Ries Basin, Bavaria, Germany," *Journal of Geophysical Research*, V. 66, 1961, p. 3371-3378.
- Spencer, L. J., "Meteoritic Iron and Silica-Glass from the Meteorite Craters of Henbury (Central Australia) and Wabar (Arabia)," *Mineralogical Magazine*, V. 23, 1933, p. 387-404.
- Spencer, L. J., "Meteorite Craters as Topographical Features on the Earth's Surface," *Smithsonian Institution Annual Report*, for 1933, 1935, p. 307-326.
- Tassin, W., (See Merrill, G. P., 1907)
- Whipple, F. L., and Riggs, F. B., "Study of Atmospheric Entry and Impact of High Velocity Meteorites," *Smithsonian Institution. Astrophysical Observatory, Cambridge, Massachusetts, Quarterly Status Report* 18, Aug. 1960, 5 pp., AD-242417.
- Wilson, C. H., (See Jakosky, J. J., 1932)
- Wylie, C. C., "On the Formation of Meteoric Craters," *Popular Astronomy*, V. 41, 1933, p. 211-214.

Wylie, C. C., "Meteoric Craters, Meteors, and Bullets," Popular Astronomy, V. 42, 1934, p. 469-471

Wylie, C. C., "Calculations on the Probable Mass of the Object Which Formed Meteor Crater," Popular Astronomy, V. 51, 1943, p. 97-99.

NUCLEAR AND H.E. CRATERING PHENOMENA

Bacigalupi, C. M., "Large Scale Excavation with Nuclear Explosives," Lawrence Radiation Laboratory, Contract No. W-7405-ENG-48, Jan. 1959, 16 pp., UCRL 5457.

Beals, C. S., and Innes, M. J. S., "The Study of Fossil Meteorite Craters with the Aid of Geophysical and Diamond Drilling Techniques," Proceedings of the Geophysical Laboratory - Lawrence Radiation Laboratory Cratering Symposium, UCRL-6438, Oct. 1961, p. 42-86.

Bennett, B., "Successive Cratering Shots Along the Same Vertical Axis," Boeing Document D2-90459, 1963, 40 pp.

Carlson, R. H., "Local Distribution of Material Ejected by Surface Explosions: White Tribe Interim Report," Boeing Company, Document No. D2-6955-2, Aug. 1961, 85 pp.

Carlson, R. H., and Roberts, W. A., "Rayed Debris Distribution Systems Associated with Explosion Craters," Boeing Company, Document No. D2-90151, 1962, 17 pp.

Carlson, R. H., (See Roberts, W. A., 1962)

Carlson, R. H., (See Roberts, W. A., 1962)

Carlson, R. H., and Roberts, W. A., "Mass Distribution and Throwout Studies," Project Sedan Final Report PNE-217F, 1963, 144 pp.

Carlson, R. H., (See Danes, Z. F., 1963)

Chao, E. C. T., (See Shoemaker, E. M., 1961)

Danes, Z. F., and Carlson, R. H., "Scaling Laws for Crater Ejecta Quantities," Boeing Company, Document No. D2-90445, Dec. 1963, 16 pp.

Eggleton, R. E., (See Shoemaker, E. M., 1961)

Evans, G. L., "Investigations at the Odessa Meteor Craters," Proceedings of the Geophysical Laboratory - Lawrence Radiation Laboratory Cratering Symposium, UCRL-6438, Oct. 1961, p. 87-98.

Fulmer, C. V., and Roberts, W. A., "Rock Induration and Crater Shape," Boeing Document D2-100076, 1963, 23 pp.

Hinze, W. J., (See Martin, D. L., 1958)

Innes, M. J. S., (See Beals, C. S., 1961)

Martin, D. L., and Hinze, W. J., "Energy Partition of Underground Explosions," U.S. Army Engineer Research and Development Laboratories, Corps of Engineers, AFSWP-789, March 1958, 43 pp.

Murphey, B. F., "Explosion Craters in Desert Alluvium," Proceedings of the Geophysical Laboratory - Lawrence Radiation Laboratory Cratering Symposium, UCRL-6438, Oct. 1961, p. 151-164.

Nordyke, M. D., "On Cratering - A Brief History, Analysis, and Theory of Cratering," University of California, Lawrence Radiation Laboratory - Livermore, UCRL-6578, 1961, 72 pp.

Nordyke, M. D., (Editor), "Proceedings of the Geophysical Laboratory - Lawrence Radiation Laboratory Cratering Symposium," UCRL-6438, Oct. 1961, 206 pp.

Nordyke, M. D., (See Ness, W. N., 1961)

Nordyke, M. D., "Nevada Test Site Nuclear Craters," Proceedings of the Geophysical Laboratory - Lawrence Radiation Laboratory Cratering Symposium, UCRL-6438, Oct. 1961, p. 136-150.

Nordyke, M. D., "Crater Studies," Lawrence Radiation Laboratory, ITR-1816, Aug. 1962, 30 pp.

Ness, W. N., and Nordyke, M. D., "Throwout Calculations for Explosion Craters," Journal of Geophysical Research, V. 66, 1961, p. 3405-3412.

Roberts, W. A., (See Carlson, R. H., 1960)

Roberts, W. A., and Carlson, R. H., "Ejecta Studies - Sedan Event," Boeing Company, Document No. D2-90296, Dec. 1962, 61 pp.

Roberts, W. A., (See Carlson, R. H., 1962)

Roberts, W. A., and Carlson, R. H., "Permanent Ground Tilt and Rotation - Preliminary Report," Boeing Company, Document No. D2-90204, July 1962, 26 pp.

Roberts, W. A., "The Crater Lip Crest," Boeing Document No. D2-90298, 1963, 50 pp.

Roberts, W. A., (See Fulmer, C. V., 1963)

Shoemaker, E. M., and Chao, E. C. T., "New Evidence for the Impact Origin of the Ries Basin, Bavaria, Germany," Proceedings of the Geophysical Laboratory - Lawrence Radiation Laboratory Cratering Symposium, UCRL-6438, Oct. 1961, p. 28-41.

Shoemaker, E. M., and Eggleton, R. E., "Terrestrial Features of Impact Origin," Proceedings of the Geophysical Laboratory - Lawrence Radiation Laboratory Cratering Symposium, UCRL-6438, Oct. 1961, p. 1-27.

Vaile, R. B., Jr., "Pacific Craters and Scaling Laws," Proceedings of the Geophysical Laboratory - Lawrence Radiation Laboratory Cratering Symposium, UCRL-6438, Oct. 1961, p. 99-135.

Violet, C. E., "A Generalized Empirical Analysis of Cratering," Proceedings of the Geophysical Laboratory - Lawrence Radiation Laboratory Cratering Symposium, UCRL-6438, Oct. 1961, p. 183-206.

Vortman, L. J., "High-Explosive Craters in Tuff and Basalt," Proceedings of the Geophysical Laboratory - Lawrence Radiation Laboratory Cratering Symposium, UCRL-6438, Oct. 1961, p. 165-182.

Vortman, L. J., "Craters from Repeated Direct Hits at the Same Aiming Point," Sandia Corporation, SC 4760(RR), Jan. 1963, 8 pp.

Vortman, L. J., "Cratering Experiments with Large High-Explosive Charges," Geophysics, V. 28, No. 3, 1963, p. 351-368.

-----, "Effects of a Soil-Rock Interface on Cratering," U.S. Army Engineer Waterways Experiment Station, Corps of Engineers, AFSWP-1056, May 1958, 65 pp.

-----, "Analysis of Ejecta Data," Boeing Company, Aerospace Division,
D2-90467, Oct. 1963, 25 pp.

1/2
FRAMES

Adler, J. M., (See Salisbury, J. W., 1962)

Beltran, A. A., Goldmann, J. B., and Graziano, E. E., "Annotated Bibliography of Lunar Properties, Geology, Vehicles, and Bases - Part II - Vehicles. Trajectories, and Communications," Special Bibliography SB-61-67, Missiles and Space Division, Lockheed Aircraft Corporation, Dec. 1961.

Beltran, A. A., Goldmann, J. B., and Graziano, E. E., "Annotated Bibliography of Lunar Properties, Geology, Vehicles, and Bases - Part III -Lunar Exploration," Special Bibliography SB-61-67, Missiles and Space Division, Lockheed Aircraft Corporation, Dec. 1961.

Beltran, A. A., Goldmann, J. B., and Graziano, E. E., "Annotated Bibliography of Lunar Properties, Geology, Vehicles, and Bases - Part I -Known and Conjectured Properties," Special Bibliography SB-61-67, Missiles and Space Division, Lockheed Aircraft Corporation, Dec. 1961, 170 pp.

Dunlap, A. K., (See Magnolia, L. R., 1963)

Goldmann, J. B., (See Beltran, A. A., 1961)

Goldmann, J. B., (See Beltran, A. A., 1961)

Goldmann, J. B., (See Beltran, A. A., 1961)

Graziano, E. E., (See Beltran, A. A., 1961)

Graziano, E. E., (See Beltran, A. A., 1961)

Graziano, E. E., (See Beltran, A. A., 1961)

Henny, R. W., "Bibliography of Extraterrestrial Research," AFWF-RTD-TDR-63-3025, Jun. 1963, 103 pp., AD-410518.

Krieger, F. J., "Soviet Periodical Literature on Astronautics," Rand Corporation, p. 1562, Dec. 1958, 12 pp.

Magnolia, L. R., "Interplanetary Matter. A Bibliography," Space Technology Laboratories Research Bibliography No. 42, 1962, 591 pp.

Magnolia, L. R., "Interplanetary Matter. A Bibliography, 1962 Supplement," Space Technology Laboratory Research Bibliography No. 46, 1963, 294 pp.

Magnolia, L. R., and Dunlap, A. K., "The Lunar Base. A Bibliography," Space Technology Laboratories Research Bibliography No. 48, 1963, 92 pp.

Magnolia, L. R., "Interplanetary Matter. A Bibliography, 1963 Supplement," TRW Space Technology Laboratories Research Bibliography No. 50, 1964, 312 pp.

Mikhaylova, Z. M., (See Zatrutina, R. F., 1960)

Salisbury, J. W., and Salisbury, L. T., "Bibliography of Lunar and Planetary Research - 1960," AFCRL-684, GRD Research Notes, No. 62, Jul. 1961, 54 pp.

Salisbury, J. W., Van Tassel, R. A., and Adler, J. M., "Bibliography of Lunar and Planetary Research, 1961," AFCRL-62-676, Jul. 1962, 81 pp.

Salisbury, L. T., (See Salisbury, J. W., 1961)

Silken, B. I., (See Zatrutina, R. F., 1960)

Van Tassel, R. A., (See Salisbury, J. W., 1962)

Zatrutina, R. F., Mikhaylova, Z. M., and Silkin, B. I., "International Geophysical Year Bibliography of Literature in the Russian Language for 1958," Compiled by the Interdepartment Committee for the IGY, Academy of Sciences, USSR, (Translated by NASA-TT-F-12, May 1960, 75 pp.